

THE RELATIONSHIP BETWEEN AVATAR'S CAPI-  
TAL AND PLAYER'S GAMING ORIENTATION: A  
STUDY IN FINAL FANTASY XIV

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Master's Thesis  
May 2017

The world's digitalization has changed our lives in numerous ways. Digitalization has changed how people consume entertainment and video games are just one example of this. Persistent online game worlds where a massive number of players can interact with each other around the clock were non-existent two decades ago. Player studies is still in its infancy, because it is not fully understood yet what kind of lives the players have in these online virtual worlds. One way to look at the lives of the players is to examine the types of capitals they have. The players of video games do have, in fact, multiple types of capitals at their disposal in the digital game worlds. In this study, the capitals are referred to as resources available to an avatar in various forms. However, what kind of players have which types of capitals are still largely unexplored. This study attempts to find an answer to that problematic issue.

This study investigates the relationship between avatar's capitals and player's gaming orientation. This study employs Bourdieu's theory of capitals (Social, Economic, Cultural and Symbolic) and Yee's *Motivations for Play in Online Games* scale to investigate the relationship between avatar's capitals and player's gaming orientation via an online survey (n = 905). Aimed at players of a Massively Multiplayer Online Role-Playing Game, *Final Fantasy XIV*.

The results show that player orientation is associated with avatar's available capital. Cultural capital was predicted by player's gaming orientation related to *immersion*, game mechanics and socializing with other players. Economic capital was predicted by player orientation related to *achievement*, *relationships* with other players and *teamwork*. Social capital was predicted by player orientation related to *social* and *escapism*. Symbolic capital was predicted by player orientation related to *achievement*, *relationship* and *teamwork*. More research is needed to form a more holistic understanding of avatar's capitals by focusing on different MMORPGs, genres and platforms.

Keyterms: Capital, Video Games, MMORPG, Player Types, Final Fantasy XIV

## Preface

The process of writing this thesis has not been easy by any means. Coming from a family with little to no academic education and with a bachelor's degree from Tampere University of Applied Sciences, the learning curve has been steep and harsh. Prior to my studies at the University of Tampere, I had no idea how to write thoughtfully, critically and academically correct. During these two years, I have tried to always perform a bit better every day so that this thesis could stand proudly amongst other academic publications. There is still much to learn and I am eagerly looking forward to doing just that, learn.

I would like to thank my ever-patient mentor, Juho Hamari, for answering my questions and thoughts in a diligent and dedicated manner, sometimes after midnight. Juho's guidance has been exemplary and I feel I have learned more about academia and the writing process from him than other classes and courses combined. Whereas courses revolve around singular themes, writing thesis spans across courses and has demanded me to think about writing in ways that never were talked in those courses. Fortunately, Juho's commentary has been directly to the point with perfect argumentation that allowed me to understand why something should be written in a different narrative and so on.

Thank you, Juho.

Lastly, I want to thank my partner for patiently listening to my rambles and babbles about the thesis and topics related to that. It must have been confusing to hear thirty minutes of me thinking aloud how should I approach certain topics present in the thesis regarding topics you have not accustomed to and read about. Thank you for making me explain very basic definitions and terms to you, so that I can understand them better by asking me more "why?"-questions than I have ever heard in my life.

Thank you, Jenni.

Tampere, 13.05.2017.

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# 1 INTRODUCTION

Video games are becoming increasingly popular and so does the attention video games attract in multiple aspects, such as society around and inside the games. Being a gamer in the contemporary society still bears a somewhat negative stigma, but less so when compared to ten, twenty or even thirty years ago. Being a gamer is becoming increasingly acceptable in everyday society because video games reach wider audiences (see, e.g. Mäyrä, Karvinen and Ermi 2016, 2-3). That leads to questions about players' identities in and around games. Players have multiple alter egos and they are identified differently in games and they might differ from the person that is behind the character and how he behaves in games from other alter egos the player has. Players and their avatars are living another (social) life in games; games that are outside the scope of what is understood to comprise our daily realities. Therefore, games and the players' lives in them originate a new research fields in sociology and psychology.

The constant rising popularity of MMORPGS in the last fifteen years has attracted massive attention in the forms of numerous research articles and other academic publications. Most studies related to MMORPGs have focused on *World of Warcraft* (WoW) by Blizzard Entertainment (2004), and rightly so. *WoW* is to the date the most successful MMORPG of all times with millions of active subscribers each month. *WoW*'s popularity has attracted many academics to study the complex world of MMORPGs in more detail than ever before. Many, if not most, studies focus on social aspects of *WoW* measuring how players interact (Nardi and Harris 2006), how much they spend time grouped with each other (Ducheneaut et al. 2006) and what is the effect of being in a guild (Williams et al. 2006). These studies more often than not, used in-game data made available by using custom-made programs (AddOn) to collect data, without needing significant amount of direct contact with other players.

While the data gathered from the game itself and player orientation surveys do give a good insight into what they players do and what might be their intrinsic motivations to play in a certain way (and certain types of games), they do not delve deep enough. Numerous existing and widely used player orientation typologies measure how and why a player plays a game. The angles in these typologies vary from preferences (Yee 2007) and trait theory (Nacke, Bateman and Mandryk 2014) to behavioral validation using a

game's server data (Kahn et al. 2015). Despite these typologies and many others, there is a gap between gathered game data and the person behind the screen focusing on mastering and enjoying a game. The research field has not focused keenly enough on the lives players have in the game worlds, but rather to the experiences they gain from them. This study aims to explore the gap by more precisely identifying what is missing from this area of research by launching the development of a survey scale to add to the understanding of the habitants of the online virtual game worlds. This leads to the research question this study aims to find an answer to: How is player orientation related to avatar's capital?

This study approaches the missing area from the player's point of view, where their in-game behavior, preferences and what the players have both in the concrete and abstract form in a game is quantified. The theory of capitals by Bourdieu (1986) and subsequently the division of capitals is the starting point for quantifying player's and avatar's capitals. Bourdieu theorized in 1986 that there are four different types of capitals (social, economic, cultural and symbolic) a person can accumulate and use in various ways (Bourdieu 1986). These same types of capital can be used to measure how players collect and consume different aspects and goods in games.

In *FFXIV*, an avatar can be seen as a digitalized alter ego of the player, whose capitals are in effect only inside the game. Apart from some rare exceptions, the capitals bear no value outside the game and communities related to it. These exceptions can be chatting with in-game friends using an external chat program or understanding how MMORPGs function at least on the surface level. For example, social capital in games can be accumulated by communicating with other players or being a part of organized groups. Economic capital is accumulated by collecting and saving in-game currencies. Cultural capital increases when the player gains knowledge of the game and uses it to advance his in-game behavior, such as learning to be more effective at defeating monsters. Lastly, symbolic capital is amassed when the player earns a title, for example. All these combined gives deeper insight to why players play in certain ways and what kind of attributional differences there are between players.

For this reason, this study will explore the relationship between avatar's capitals and player orientations in order to find out if there are any statistically significant associations between them. This study will utilize Yee's *Motivations for Play in Online Games* (2007) scale to gather data about player orientations, but it alone is not enough. There is a need

to collect quantifiable data that can be used to compare data from player orientation survey. To solve this problem, a survey was developed about avatar's capitals and combined it with Yee's (2007) scale to find those associations and other underlying aspects of game-play.

Chapter 2 will focus on the theoretical background of this study, including how Bourdieu's theory of capitals can be used in a video game context, how player orientation studies have evolved and issues with them when used as the only explanation for in-game behaviors. Chapter 2 will conclude by presenting hypotheses. Following that in chapter 3, research methodology is presented in more detail. Chapter 4 presents the results from the data analysis. Then, the chapter 5 discusses the results in more detail and provides possible reasons as to why some statistically significant associations were found. Lastly, the chapter 6 concludes the study by discussing implications this study has and proposing future studies around capitals in the video game context.

## 2 THEORY

This chapter and the following subchapters will discuss prior literature and theory on both main topics discussed in this article. First, the term capital is presented and explored how it has moved from financial context to numerous others. Next, Bourdieu's (1986) theory of capitals is briefly presented and then the context is moved from general definitions and previous study focus areas of the four capitals to video game context. Each of the four capital types is presented individually to further explore and explain how these capital categories can be seen in MMORPGs. The next subchapter will focus on multiple different player orientation taxonomies and surveys from various authors while looking at and explore other similar studies of the same area. After introducing these two main topics, the study proposes the hypotheses how player orientation and avatar capital may be related.

### 2.1 Capital

Capital as a term has been in use in the English language for several decades. Current contexts of the term vary from a member of a column or pilaster to being used to emphasize the following word to have a greater and more serious effect (capital punishment for example) and to accumulated goods and resources in an economic context<sup>1</sup>. Its meaning has slightly changed in that time from strictly being a part of the production cycle (labor, land and capital) to be more precise where the context is taken into account. The term has indeed evolved to mean "one's available and accumulated resources" in various contexts (Kranzinger 2016, 37-38; Ra 2011, 18; Bourdieu 1984, 114) and in that form, it is used in a great number of research fields. This is often visible with an added prefix, such as economic capital.

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<sup>1</sup> <https://www.merriam-webster.com/dictionary/capital>, Accessed 04.03.2017.



Today, popular prefixes in terms of academic attention are economic, social, cultural, natural and human. Each of these prefixes gives more meaning to the term in their respective areas. These terms often connect to other types of capital that together can be used to describe how a society or a business operates, for example.

Currently, five different types of categories can be identified that narrow down and give more context to the term capital. The first category includes definitions where the capital is tied to another broader context, such as economic and social capital. Both of these capitals contain large concepts that are studied from multiple points of views. For example, social capital has been popularized by multiple scholars after its first documented use in a 1916 paper by Lyda Judson Hanifan, *The Rural School Community Center*. Social capital as a term and a concept was further popularized at the start of this millennia when Robert Putnam's book, *Bowling Alone: The Collapse and Revival of American Community* (2000) and a book written by Robert Putnam and Lewis Feldstein, *Better Together: Restoring the American Community* (2003) were published. These books gained a lot mainstream attention and social capital has been actively studied and debated over ever since. The term economic capital has been in use for multiple centuries, starting its modern use in Adam Smith's book, edited by Edwin Cannan, *An Inquiry into the Nature and Causes of the Wealth of Nations* (1904), with the original use of the term dated to 1776. Since then, the term has changed to see more general usage of the term where capital in economic context refers to either physical goods and tools that assist in the production cycle, such as pickaxes for miners or financial capital, which means non-physical saved-up wealth that is used for non-physical investments, for example, a business.

The second category includes definitions that are more precise terms which are still operating under broader uses of the term. For example, there are multiple types of social capital, but in this digital age, two common subcategories are popular. Bonding and bridging social capital, that Putnam (2000) first conceptualized and Williams (2006) later applied the theory in the form of a survey. In the economic context, liquid and patient capital are often seen. Liquid capital is short-term and patient capital is long-term capital, where the expectation of revenue (or any type of profit) is varied by time expectancy. Cultural capital also has three subcategories, as presented and defined by Bourdieu (1986): *embodied*, *objectified* and *institutionalized*. Each of these mentioned subcategories approaches their parent capital term from different points of view without contradicting it, but describing in more detail what economic, social and cultural capitals contain.

The third category can be seen to include definitions that combine multiple capitals into one. One of the most common examples is human capital. The term was popularized by Gary Becker that refers to the available resources in the forms of “knowledge, habits, social and personality attributes, including creativity” to perform labor in order to produce (economic) value (1975, 9). Human capital can be understood to include different amounts of social, cultural, symbolic and economic capital, as defined by Bourdieu, that together operates as one capital in enabling labor produce value.

The fourth category is the definitions that extend other broad scale terms and definition by adding more contexts. For example, Mia Consalvo speaks of gaming capital in her book *Cheating: Gaining advantage in Video Games* (2007). Gaming capital, according to Consalvo, is a term that extends cultural capital by adding information that transforms the cultural capital’s concept to video game context. Consalvo does not just talk about cultural capital in a video game context, but adds to it by exploring throughout her book, what does it mean to be a gamer in contemporary society. Consalvo approaches video games and their players from society’s point of view and looks where gamers stand in it. Bourdieu (1986) also approached his capital theories at the societal level, and thus it can be seen that Consalvo rather extends cultural capital, than creates a new form of capital.

The fifth and last category is to approach capitals as interconnected to other capitals. For example, symbolic capital as defined by Bourdieu (1986) falls into this category. According to Bourdieu symbolic capital is directly affected by one’s social, economic and cultural capitals. Symbolic capital one has, thus, varies depending on his position and status as part of society. Symbolic capital is accumulated when a person gains prestige or honor based on his actions. To do or gain something prestigious, one has to have high amounts of cultural or economic capital that are recognized by others (social capital). For example, winning a championship in a big eSports-tournament earns the team or player symbolic capital as they are socially (within the eSports-scene) recognized as best where only skills and knowledge (cultural capital) matter.

The reason for focusing on Bourdieu’s division is that he made clear distinctions between the types of capitals, even though they originally were separated from the purely economic point of view (Bourdieu 1986). Bourdieu first defined three different types of capitals: social, economic and cultural capitals. Bourdieu himself divided the cultural capital into three subtypes: *embodied*, *objectified* and *institutionalized*. Later he added symbolic

capital to the list. While Bourdieu's focus is at the level of society as a whole and how individuals operate and act in it, it does not mean that these core ideologies behind capitals could not be used in other contexts, as will hopefully be clear in the following subchapters.

## **2.2 Capital and Video Games**

In addition to the topics and categories listed in the previous chapter, there are a number of studies where the concept of capital is used in a video game context. There are different categories how it could be used, as was mentioned in chapter 2.1. Even with the multitude of studies where capitals and video games are combined, there has been a severe lack of interest apart from social capital (see, e.g. Zhong 2011; Zhang and Kaufman 2015; Benefield, Shen and Leavitt 2016; Shen and Chen 2015; Williams et al. 2006). Social capital has indeed gained a lot of attention, both in online games where social aspect is present all the time and how playing video games affect the social life outside those video games.

This lack of attention to other aspects of online video games is most apparent in MMORPGs, where the game world is persistent and players are free to choose the way they play and communicate with other players. Focusing largely only on social capital is a flawed way to understand the players inhabiting those vibrant and large worlds of MMORPGs. One way to study players and their behavior in MMORPGs using capital theories is to find different capitals to add to the list. For example, Bourdieu (1986) has theorized and talked about four different types of capitals, that can manifest in various ways in MMORPGs. These capitals could be studied separately from each other because how they are present and represented in those games. But first, it is important to understand why Bourdieu's categorization of capitals for this study is fruitful, how capital theories are used in different ways in various video game studies and how capitals can be quantifiably measured when the context is an MMORPG. Thus, different capital theories have acted as guides to find how capitals do manifest in *FFXIV* leading ultimately to the development of the survey's items.

In addition to avatar's capitals that are accumulated and consumed solely inside the game, virtual goods have become one of the fastest growing consumption categories in digital environments. Virtual goods can be equated to both physical goods such as books sold on

eBay and digital goods sold through services like iTunes, where it is possible to buy the music. Virtual goods in the context of MMORPGs can refer to vanity items such as non-combat pets, mounts and themed gear with no effect on avatar's stats (Fairfield 2005; Hamari and Lehdonvirta 2010; Lehdonvirta 2009). *FFXIV*'s virtual goods shop offers also virtual furniture, gear dyes, additional retainers (NPCs that offer bank space and light material gathering services) and in future, possibly a token that allows players to reach a certain level immediately, akin to *WoW*'s character boost token. Virtual goods fall between physical and digital goods, as they are in a digital form, but cannot be duplicated in the same sense as a digital soundtrack can (Fairfield 2005; Hamari and Lehdonvirta 2010; Harviainen and Hamari 2015; Lehdonvirta 2009). If a player wants to accumulate in-game capitals by buying virtual shop only items, he must pay separately for each new copy of the item in the case of *FFXIV*. These optional items are unlimited, as they are sent via in-game mail from the system, rather than redeemed using a code.

When changing, and limiting the contexts of capitals, it is noteworthy to understand that players interact with other players constantly and therefore collect and consume capitals both inside and outside the game world. A more concrete example of this are numerous forums and other media players use to talk about their favorite games. Drawing the line where the game ends when studying capitals from this angle is hard and in some cases, it should not be drawn at all. The reason for this is that in contemporary online games, such as MMORPGs, people are actively communicating with each other and those who belong to a group of players, such as a clan or a guild, might talk about the game's various aspects outside of it. This also blurs some of the lines between capitals. Another reason is that players are required to be online at all times when playing MMOs removing any chance of being the sole person playing the game at any given time. Meaning that players can in some cases collect and consume capitals relevant to the game outside of it, and this can lead to players gaining a significant amount of capital in-game. For example, one person using his past accomplishments in-game to gain access to a group that focuses on more difficult content than the applicant has earlier had access to. This nets the applicant significant boost in capitals, as he is now recognized as part of a group that is known (either server- or worldwide) for their focus.

Even though Bourdieu (1986) separated and divided three capitals from the economic context, they are still linked to their source in some ways. According to Bourdieu (1986),

high amounts of economic capital that parents have can buy their children better education leading to gain in cultural capital. This in time turns into social capital as they have higher and better education than others, in the form of titles and credibility. All around this symbolic capital is accumulated as some kind of a combination of all three. But symbolic capital cannot be accumulated on one's own, because it is tied to other people's acknowledgment (social capital) of one's skills (cultural capital) that one has "unlocked" with studies in a private school (economic capital). In *FFXIV*, the circulation of capitals one player has is not similar as they are not so interchangeable due to limited contexts and limitations of the game world.

Most literature pertaining to capital stems from the work of Bourdieu's way of categorization capitals in the area of game research. Sometimes a prefix is placed before stating the term capital, for example "group social capital" (Oh, Chung and Labianca 2004) or "online social capital" (Williams 2006) or changing it altogether, for example "gaming capital" (Consalvo 2007) to narrow the usage of the term to the specific context they are used in. Even though not all of these publications cite the Bourdieu's work, they still use his classification of different capitals. Bourdieu's division of capitals is still a unique way of portraying multiple capitals when exploring larger contexts, such as societies. This framework can be applied to online multiplayer video games, where each game has its own society with both formal and informal rules. For this reason, it is meaningful to use Bourdieu's categorization and find what kind of aspects in *FFXIV* can be put in them.

### **2.2.1 Social Capital**

Social capital has many definitions and they can vary greatly depending on the point of view of the author and context. In some cases, there are some prefixes in order to further narrow down the context of the definition. Many other types of definitions also exist, but they fall more strictly between internal and external social capital. There are also a few definitions that could be categorized between internal and external social capital.

Examples of internal, or bonding, social capital definitions are from Putnam (1995, 67) "features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit", Thomas (1996, 11) "those voluntary means and processes developed within civil society which promote development for the collective whole" and Fukuyama (1995, 10) "the ability of people to work together for common purposes in groups and organizations".

Then again external, or bridging, social capital definitions are from Knoke (1999, 18) “the process by which social actors create and mobilize their network connections within and between organizations to gain access to another social actor”, Portes (1998, 6) “the ability of actors to secure benefits by virtue of membership in social networks or other social structures” and Bourdieu (1986, 243 and 248) “made up of social obligations (‘connections’), which is convertible, in certain conditions, into economic capital and may be *institutionalized* in the form of a title of nobility” and “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition”.

Loury’s (1992, 100) definition of social capital falls between these two, and is close to Bourdieu’s idea of social capital, because both mention the use of social capital to creation or maintenance of inequality: “naturally occurring social relationships among persons which promote or assist the acquisition of skills and traits valued in the marketplace. . . an asset which may be as significant as financial bequests in accounting for the maintenance of inequality in our society”.

Williams (2006) has brought these two points of view together in his survey-based study. He extended concepts of bonding and bridging social capital by Putnam (2000) in order to create a scale to measure what kind of online or offline relationships one has. According Williams, previous attempts at measuring and articulating about social capital in online context have fallen short. Williams further argued that they only cover one quarter of the possibilities of “how will the Internet harm real-world relationships?” This question ignores the rest of the areas as it is about offline bonding social capital. The question also leaves in the dark where and when the Internet use changes, or might change, us. Williams developed a survey that has 20 items of which 10 is for bonding and the other 10 items for bridging social capital. In the original survey, there are 40 items, as the 20-item scale was repeated once for offline and once for online relationships.

The sheer amount of social capital definitions makes it hard to directly change context to MMORPGs’ social aspect, not to mention online games as a whole. However, some scholars have studied the vibrant worlds of MMORPGs through the lens of social capital. These can be roughly separated mainly into three different categories, for the purpose of this study. The first category is where authors have had access to server data or used automated logging tools to gather data in conjunction with public character data found

online. This category focuses on chat logs and how players are grouped (duration, frequency, effectiveness etc.). Publications that fall into this category include by these authors: Williams et al. (2006) explored “how the game’s dynamics and its players’ aspirations” interplay with each other in *World of Warcraft*, Benefield et al. (2016) case studied teams’ effectiveness in *Dragons Nest* adapting Oh, Chung and Labianca’s (2004, 570) concept of group social capital, Tan et al. (2017) explored how the influence of social capital should be taken into account in leisure constraint negotiation processes and Skoric and Kwan (2011) studied the accumulation of online social capital in social networking sites and MMOGs.

The second category has publications about players’ health and well-being. For example, Hsu et al. (2009), Hussain and Griffiths (2009), Longman et al. (2009), Martončík and Lokša (2016), Nardi and Harris (2006), Snodgrass et al. (2011) and Yee (2007) approached social capital and MMORPGs from different angles of well-being in players. These topics vary from signs of addiction to well-being through self-regulations.

The third and final category is about bonding and bridging social capital and all articles listed here use Putnam’s (2000) concept of them, and Williams’ (2006) popularized survey as either theoretical backbone or as a method. Shen and Chen (2015) used bonding and bridging social capital framework to explore “how social capital and co-playing patterns are associated with health disruptions for players of a large-scale Chinese MMO”. Skoric and Kwan (2011) studied bonding social capital of MMOG players in Singapore. Steinkuehler and Williams (2006) argued that bridging social capital accumulated online (in the said article, context is MMOs) should be an important variable for investigating social and civic engagement. Tseng, Huang and Teng (2015) used social presence (Kim 2011) and social capital (Hsiao and Chiou, 2012) theories to research continuance intention of players of online games. Zhong (2011) explored the relationship between online and offline social capital in Chinese MMORPG players. Zhang and Kaufman (2011) studied social capital accumulation by elder people.

While these studies have focused on social capital and MMORPGs, their point of view is usually at the general level of MMORPGs. They tend to investigate how social capital is accumulated, how it affects real-world social capital or to give mixed outcomes whether MMORPGs are more prone to give bonding or bridging social capital to the players. This

gap in the research field of capitals in MMORPGs is big as only a few studies have approached players in the form of an interview. Even this kind of combining both qualitative and quantitative research methods does not give insight as to what actually is the players' position in their respective in-game communities, or how their social capital is spread out and in what pattern. For this reason, this study will use an adapted version of Williams' (2006) ISCS scale to find out how their social networks in-game are divided.

*FFXIV* is very similar to *WoW* in terms of how the game operates at the social level. Similarities include the player being able to belong to a free company (guild), join linkshells (chat channels), use various in-game tools to find other players for group content, chat in various ways outside the free company and linkshell channels and form ad hoc parties with other players to accomplish tasks, for example. Thus, social capital studies where *WoW* was used as the target audience applies to *FFXIV*. This allows comparison of social capital distribution, manifestation, collection and consuming between these two games at least on some level. However, developers of *FFXIV* have not released API (Application Programming Interface) for players to develop and use AddOns similar to what *WoW* has. This renders any automated data gathering from in-game impossible and any attempt at such method is limited to *FFXIV*'s website where data about players can be found. Square Enix has said that they are in the works of releasing the API for players to use, but it is not a priority nor the exact details of API fully discussed yet.

### **2.2.2 Economic Capital**

In classical economics, the term capital was one part of the three basic factors of production: labor, land and capital (Smith 1776). These factors are used to produce products for markets that then again accumulate economic capital. The act of utilizing and the amount of the three factors were also included in the term economic capital when calculating the volume of it. Capital, as a factor of producer services, means tools, machinery and buildings used in the production cycle. In neoclassical economics, or in contemporary economics, there are multiple economic capital definitions that can be seen to be under the economic capital definition that aims to give more precise meaning to different sides of the economic capital. As part of the production cycle, the capital term has more and wider definitions, such as working and financial capital. In addition, there are abstract definitions for economic capitals. For example, liquid and patient capitals are examples of this. These two capitals are opposite of each other, but not mutually exclusive.



For Bourdieu, economic capital is a term where an actor holds, accumulates and uses resources available to him/it in that can assume both tangible and nontangible forms (Bourdieu 1986). Bourdieu refers to economic capital as any financial resources that can be expressed in a concrete form in property rights, for example. Kranzinger (2016, 42) argues that according to Bourdieu “capital is an immanent regularity of the social world”, meaning that the capital’s distribution within a society can be seen as a set of restrictions. Then again, Kranzinger (2016, 42) continues that for Bourdieu any non-economic forms of exchanges are uninteresting, as they reduce the world to mercantile exchanges.

The world of video games is no exception. There are brands of video games and developing companies that offer and accumulate economic capital in various ways. These ways include selling a video game, in-game items and content, subscription fees, additional services (character rename and transfer for example) and tie-in products, such as apparel and keyboards. All this is however from developers point of view showing possible revenues. In online multiplayer games, especially in MMORPGs, where players have some power to dictate prices for their products, players can earn economic capital too. Players can also utilize the three basic factors of production, but how they are presented in-game varies between MMORPGs greatly. For example, in *FFXIV* land refers to gatherable natural resources, such as minerals, tree, flora and fauna. Labor is the players themselves and their biggest payment is time available to them on an individual basis. Finally, capital stock means gathering and crafting gear players use to produce consumer goods.

As is the case with social capital, the exact definition of economic capital is not set in stone. It changes based on the point of view, field and context having different meanings. Because MMORPGs are not as complex in terms of economics and are more or less closed systems where only a limited number of actors can take part, it is sufficient to define economic capital as Ra (2011, 18) defined it in his dissertation: “economic capital is directly convertible into money, and may be manifested in family income and wealth”. However, there are no families in MMORPGs in the same sense than in the real world, but the family can mean any group player belongs to that he/she shares common goals with. In this sense, any resource that can be converted into in-game currency is economic capital and its purpose is to help the family in one way or another. This should be distinguished from Putnam’s (2000) definition of social capital, where resources are used for the good of the community. Here the resources used are in monetary and tangible forms, instead of social networks, even if the aim is similar.

The world and economy in MMORPGs are not commonly as complex as the “real world”. In *FFXIV*, there are no stakes or stock market and no loans that are regulated (apart from money transfers between players with interest rates agreed on a case by case basis). And more importantly, no in-game currencies can be traded for real-world currency. However, some players do actually pay real-world money in exchange for in-game currencies using certain websites, and this action is strictly prohibited in *FFXIV*. *FFXIV*’s developers are fighting hard to cease and remove Real-Money Trading from their game, as is apparent from a weekly report on the official website, one such report is dated 02.02.2017.<sup>2</sup> In *FFXIV*, players can directly trade with others and put certain types of items on the market board. These are crafted or boe (bind-on-equip) items, such as potions, gear, furnishings, mounts and pets. Rarely there are items available in MMORPGs where the player is able to sell equipment after using it himself, thus limiting the number of items in the economy. No service is available for direct trade, even though it exists in the form of selling dungeon runs to other players against the in-game currency. This service exchange is usually called “boosting” or “carrying”, where a group of high skilled and geared players is able to take one or more players with lower skill or gear with them the dungeon and still clear it.

Even though the economy in MMORPGs, and in this case in *FFXIV*, is not as complex and definitely not as risky as in real life, it does not mean that amassing wealth is easy. It takes a lot of resources, such as time and gear, to be profitable in *FFXIV*. Each player starts the game with zero gil and has no other financial resources. Therefore, every player starts with nothing in an equal setting. Differences in in-game wealth come mainly from the time available and the effectiveness of the time used. Players have to start by using their time to gather resources that then they either sell to other players using an in-game auction, market board or refine them into items. These items then again can be sold to players or to vendors, used or destroyed.

There are other economy limiting factors in *FFXIV*. First is that it is run solely by players and secondly market board, the game’s equivalent of the global market, is limited to the population of one server. This means that each server has its own market where the supply

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<sup>2</sup> <http://eu.finalfantasyxiv.com/lodestone/news/detail/2e31751252e201bdf5c866cec4802b1356ec3a5e>, Accessed 04.02.2017

and demand can vary greatly between servers and it means that prices, or values of in-game currencies, vary also. The clearest example of this is the developers listed prices for in-game houses' plots, where developers originally divided servers into three groups according to the state of the economy and player run markets.<sup>3</sup> In the richest server group, the most expensive plot for sale initially started from 87.5 million gil, whereas in the medium-priced server group initial price was set to 70 million gil, and in poorest server group initial price was set to 43.75 million gil. Developers decided to unify the plot prices to be similar to all servers. After the adjustments, the most expensive plot for sale initially started from 50 million gil, meaning that prices dropped a lot in other server groups apart from the poorest server group, where the prices went up. This can be seen to be similar to different countries and cities within having different prices for essentially the same product. Location and purchasing power varies greatly (e.g. prices of Sofia versus Shanghai), and that phenomenon is present in MMORPGs as well.

Complexity of *FFXIV*'s economy comes from a number of different currencies that can be exchanged (usually only one-way) into gil, *FFXIV*'s equivalent of money, such as the dollar or the euro. Players are able to collect and consume these currencies in various ways and turn them into gil in four ways. Either by selling a product bought with tokens to the vendor, or selling the item through the market board, or use it until it can be transformed into different materia that can be socketed into gear. The final way of doing so is to buy the item and then use it in crafting a second item. The number of currencies in *FFXIV* is not definitive, as what is counted as currency depends on the definition of it. Bernstein (2008, 4-5) talked in his book about currency as one medium enabling "one person to exchange his production for another's". Using this definition, anything that a player can collect and trade using gil as the main index for putting a value for items, is currency and these then include: gil, grand company seals, Manderville Gold Saucer Points, Beast Tribe tokens and different types of tokens rewarded from Player-versus-Player (PvP) and Player-versus-Environment (PvE). Items, crafted included, fall into this category, but their value is determined by the end result of its place in the chain. For

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<sup>3</sup> <http://na.finalfantasyxiv.com/lodestone/topics/detail/611a2417fbdd247a18a619409302b2896cea7f52>, Accessed 04.02.2017

example, a pair of leather boots has a value of X in the market board, but if player exchanges them in for Grand Company Seals and buys something else tradeable with those tokens that have higher monetary value, the real value increases. For this reason, some items are kept in players' inventories and banks for future safekeeping. If the player decides to change servers, it is recommended to keep these high-value items in inventory as the raw gil amount that player can carry over to a new server is limited, in order to protect destination server's economy from the sudden influx of gil.

The economy in *FFXIV* is further regulated when using the Market Board. Every time an item you have put up for sale is sold, there is a certain fixed percentage of the listing price redacted. Similarly, if you buy an item using a market board, but the item you are buying is listed from different city-state compared to where your character is at that moment, a variable tax percentage is added and shown before you can buy the item. Other than this market board tax, there are no automated gil reduction mechanisms in *FFXIV* that have an impact on the economy of the server. Players do have to pay for using a teleport or Chocobo ride (taxi) services when moving to a different area and when repairing their gear through an NPC. Biggest gold sink in *FFXIV*, at the moment, is buying an in-game house either for yourself or your free company. In the most expensive server group, largest house property costs 50 million gil, just for the lot. To put this into perspective, the highest teleport fee is around 1,500 gil and repairing high-level gear at an NPC costs around 4,500 gil.

Thus, in this study, there will be a set of questions in the survey where the respondents are asked to roughly estimate their amount of currencies, forms of gains and forms of spending. This allows mapping how economic capital circulates through one player, what is gained by consuming it and if some trends in forms of gains and forms of spending emerge with sufficient amount of data.

### **2.2.3 Cultural Capital**

Unlike social and economic capital, cultural capital is not as concretely quantifiable as social and economic capital. Cultural capital is a term theorized and popularized by Bourdieu. One of the first uses of the term was in *Cultural Reproduction and Social Reproduction* by Bourdieu (1977). Later, Bourdieu further developed the concept in *Forms of Capital* (1986) and *The State Nobility* (1996). In *Forms of Capital*, the concept of cultural capital is approached from the point of view of relation with other capitals, in this case,

social and economic capital. Whereas in *The State Nobility* the concept is looked through higher education point of view. For this study, it is the relation of the capitals that is relevant. Thus, this study looks at the three subcategories of cultural capital that Bourdieu has explored and explained. The first is *embodied* cultural capital, which includes acquired and passively gained properties of an individual. This is concretized as one's habits and is gained over a period of time. The second type is *objectified* cultural capital. This includes concrete items, such as paintings or tools. These items are given value in two ways. The first way is for a person to buy such concrete item turning it into a currency. The second way is to consume the painting by understanding or realizing its cultural value. To consume an object this way requires prior knowledge of it. The third and last type of cultural capital is called *institutionalized*. This consists of institutional recognition, such as titles, degrees or other qualifications. *Institutionalized* cultural capital can be measured by comparing qualifications or titles between people. The value of these *institutionalized* cultural capitals differs between contexts and fields they are compared in, for example, CV used for applying for a job as professor versus CEO in the business field.

As the general description of Bourdieu's cultural capital is vague, many researchers have different points of view and contexts. For example, Thorsby (1999) proposed a new definition for cultural capital by approaching it from an economic capital angle. Holt (1995) illustrates ways how individuals derive subjected value using Bourdieu's cultural capital as assisting factor, but Schau, Muñiz Jr. and Arnould (2009) argued that Holt's approach was too limiting in the process of value creation. Many cultural capital studies focus on the children's education (e.g. Sullivan 2001; Lareau and Weininger 2003; Dumais 2002) and on the effects of the person's race (Yosso 2005; Roscigno and Ainsworth-Darnell 1999; Lareau and Horvat 1999), meaning that other contexts are largely missing. However, the cultural capital's concept is sometimes expanded to fit the needs in the field that it is used in. Consalvo's "gaming capital" (2007) is one example. Consalvo expanded Bourdieu's concept of cultural capital in order to explain what is it to be for an individual to identify oneself as a gamer in contemporary society. It is really unfortunate that apart from social capital studies, Consalvo's work on looking at games from the cultural capital point of view currently stands alone. Other examples of extending the concept are Bourdieu's (1984b) "academic capital" (*objectified*) and De Graaf's et al. (2000) parental cultural capital (*embodied*).

In the context of *FFXIV* and possibly in other MMORPGs (or even video games in general to a certain degree), it is hard to pin down what exactly is cultural capital, as defined by Bourdieu, and where the border with symbolic capital is. This study explores cultural capital that is restricted to one game and communities in and around it, such as free companies (the equivalent of a guild) and active forums (such as Reddit). According to Bourdieu's definition, cultural capital could be seen as the knowledge about *FFXIV* that is collected by playing the game itself and over time mastering it in one or more areas. Another way to collect this capital is by creating guides for other players or reading them, thus increasing one's knowledge about *FFXIV*. This is comparable to academic capital that can be measured through publications, teaching experience and strength of professional networks (Eddy 2006). This can lead to an increase in player skill, making him more efficient or more erudite in *FFXIV* to function better and at higher level.

Most of this falls into the subcategory of *embodied* cultural capital because the amount of information available in *FFXIV* and in guides made by players is massive. It takes time for a player to digest it. When a player starts playing an MMORPG, it might be overwhelming to learn the ropes as each of the MMORPGs functions within their own rulesets (Mortensen 2006). These include how to navigate the game world, HUD (Heads-Up Display), how to defeat opponents, how to gather and craft, make money and how to communicate with other players. These main areas of *FFXIV*'s core systems are complex and it takes time to adjust to them, regardless of the fact if the player has played other MMORPGs before or not. Meaning that player's habitus, how he acts and plays the game, evolves and changes over time, as he gains more knowledge and understanding of *FFXIV*. For example, a player at level 5 plays differently than a max level player. The difference is that the max level player knows how the game world functions, knows how to use HUD and has more abilities to make defeating enemies easier and more interesting as the skill level (or ceiling) of efficient playing keeps rising with each new ability.

The rest of the cultural capital in *FFXIV* can be seen to fall into *objectified* subcategory and further narrowing it down to exchange of items into a profit of some sorts. These include creating guides for other players by using one's cultural capital for others to "consume" and buying or owning valued and rare items, such as vanity pets. Even though, rare items could be understood as a symbolic manifestation of one's skills as some of the vanity items are only available from the hardest content, such as raids. To reach that stage in *FFXIV*, high amount of cultural capital is required (knowledge and understanding).

The player needs to understand how *FFXIV* works, how his chosen job (the equivalent of class) works in group environments and what is the most efficient way to play it, how enemies work and what is required to beat the hardest of enemies. In player versus environment (PvE) content, the number of players that defeat the final boss of a raid is a really small minority of the whole player base. For example, the number of people that had defeated end boss in the savage mode in the *FFXIV* Heavensward's first raid compared to the number of people who defeated the first boss of said raid in normal mode is massive. On top of that, it is usually reported by game companies that it is actually a minority of players who ever even set their feet in a raid environment.<sup>4</sup>

Developing items for this part of the survey has proven difficult, as no previous studies the cultural capital in this scale. Therefore, this study will focus on how the player feels about *FFXIV*'s rulesets (how coherent the game world is and does it obey its own rules), does player look for information about *FFXIV*, does player share his information with others, does the player know how to accumulate needed resources and asking about quantifiable aspects of *FFXIV*, such as achievement points.

#### **2.2.4 Symbolic Capital**

According to Bourdieu (1986), symbolic capital is “the resources available to an individual on the basis of honor, prestige or recognition”. However, it must be understood that to Bourdieu symbolic capital needs to be identified in both the cultural and historical frame in order to fully explain its influence. For example, the painting that is *objectified* cultural capital is only given symbolic capital when the environment of it is seen as prestigious (for example a villa). This means that one must not only possess a tool or an object that has worth, but needs to be able to appropriate them perceived or concrete sense of value.

Many studies that utilize symbolic capital in some ways focus on the field of education (see, e.g. Bunar and Ambrose 2016; Magnus 2016), and this comes down to Bourdieu's idea of capitals transforming into other types of capitals. There are not studies solely on

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<sup>4</sup> <http://gamerescape.com/2017/01/13/eorzean-census-2016/> Translated from official slides shown during a community stream on 16.12.2016 at Nico Nico streaming service. Accessed 10.02.2017.

the symbolic capital in video games, and my thesis will not attempt to do it, but it will include symbolic capital as a part of the player's possessions of capitals.

The second type of *objectified* cultural capital could fall into the description of symbolic capital. In the context of this study, it will be treated as such. The reason for this is that when other players read player-written guides they might like it and thus praise it, giving the guide symbolic value in the context of *FFXIV*, and only in that context. As the guide is irrelevant and unusable, apart from a few rare exceptions, in any other game or context. These exceptions include some information about how one should prepare for a raid, how to lead a group or a guild. Raids require coordination between players and while the encounters and tools available change, they require players to be prepared and armed to the teeth. This includes maximizing the potential of gear (upgrading and enhancing) and using consumables (potions, food and other items).

It is somewhat difficult to draw the line between cultural capital and symbolic capital as the world of *FFXIV* (and to some degree, other similar MMORPGs) is complex and restricted at the same time. When it comes to *institutionalized* cultural capital, it is manifested in *FFXIV* in the form of achievement points, titles and grand company ranks and beast tribe ranks to name a few. These are given in-game through various acts and apart from beast tribe ranks and achievement points, are visible to other players easily. Titles can be manually hidden and selected, and achievement points and a full list of titles available to the player can be seen outside of *FFXIV* in official and a public character database called Lodestone. Using the Lodestone's API people can draw different data and represent it in different ways. One example is a menagerie website that draws each player's information about how many pets and mounts one has, lists the rarest pet and mount he has and even ranks players based on the number of pets or mounts.

Being visible of what one does, the player can gain recognition and in some cases, prestige based on his actions in-game or for the community. These players accumulate or collect, symbolic capital as other players in-game recognize and acknowledge these acts. In *FFXIV*, these actions' prestige is often manifested in the form of different vanity items, such as titles, pets or mounts. Meaning that one player can think that he has a high amount of money or pets or is efficient at defeating monsters, but player collects symbolic capital only when others around him acknowledge these feats are indeed hard or rare to come by. For example, being the owner of a mount that drops from the final boss of a raid has



cultural capital for reaching that stage in *FFXIV*, as previously stated, but the owning of the mount is turned into symbolic capital as long as the raid content is deemed difficult by the community and raid is the newest, or current, tier. Going back to previous (lower level) raids and obtaining titles or other vanity items are not given that much, or not at all, symbolic value as they are not that hard to get or rare.

This also means, that the amount of prestige one player has, and therefore the amount of symbolic capital one has, changes as new content is patched into *FFXIV*. For a player to stay prestigious he must constantly, when new content is available, to keep earning rare vanity items, reaching the highest point in *FFXIV* (such as defeating the final boss of a raid) and be public about it. Meaning that in Bourdieu's terms, the prestigious environment changes and therefore alters the value of meaningful "objects", in this case, titles or items. From this, it can be concluded that if a player wants to have symbolic capital in *FFXIV*, he must constantly keep himself updated, upgraded and public in the game's ever-changing world. Based on the author's observations made in *FFXIV*, the community does not care for titles earned from a raid released two years ago.

## **2.3 Player Orientations and Motivations**

Every day there are more and more new games for people to play, and every day there are more and more both new and veteran players trying these new games. Some players will stop playing after the first play session, some after a couple more and a fraction of this group stay and plays the game for a few weeks or even a decade (Tseng, Huang and Teng 2015; Tarng, Chen and Huang 2008; Hamari and Keronen 2017). This phenomenon combined with an ever-increasing number of digitalized platforms reaching more and more people has forced video game developers and companies to create better and higher quality games that attract as many players as possible.

However, in terms of better and higher quality are rather subjective and thus vague ways of explaining a good and an entertaining game. Players ultimately are individuals with different tastes and foci on various aspects of video games. This has led to ever increasing pressure for video game companies to deliver these better and higher quality games (Hamari and Tuunanen 2014). For some players to be motivated to continue playing a video game, the game has to have quality graphics, mechanics, audio, story, usability, world, characters, skills or any combination of these, for example. Preferences and subjective

importance of these aspects vary depending on the context of the game. On top of the game's innate aspects and qualities, it is brand of the game or developing company, price, platform, age and amount of additional content can also weigh the motivation to the continuity of gameplay for a player (Hamari and Tuunanen 2014).

On the other side of this motivation spectrum is, of course, the player himself. Player's own aims for the game and what he expects to receive from the game varies on an individual level. Some might like the game's idea and try it out, but finds it to be hollow and severely lacking in some aspects, whereas some players enjoy the other spectrum of aspects immensely enough to keep playing. There are many variables that have an effect on the motivation for the player to start and then later to keep playing a video game (Hamari and Keronen 2017; Hamari and Tuunanen 2014; Kallio et al. 2011; Yee 2006). They can be a preference for the game's genre, platform or brand combined with player's previous experiences as a player. As Miguel Sicart, in his book *Ethics of Computer Games* (2009) argued, the player becomes a better player in terms of knowledge of the game's genre and platform that further gives more 'natural' insight what to expect from a game. In this process, the player develops certain tastes to different games.

Therefore, in order to understand more about player's motivations, it is necessary to approach this topic from the context of video games. There are currently two angles from which the motivation is approached from. The first angle is how motivations and video games are combined in order to study and find answers to the question "Why do people play games?" Contexts for this point of view range from using video games to be more motivated in school to psychological needs that video games attempt to satisfy. The second angle covers various existing player motivation scales where context is video games and how players themselves approach them. Players are then categorized in different ways in order to give more generalized answers to the question. The latter angle is more relevant for this study and will be presented in more detail below.

This study presents various player motivation and orientations scales, from granular player motivation measurement instrument such as BrainHex (Nacke, Bateman and Mandryk 2014), a neurobiological gamer typology, to Trojan Player typology (Kahn et al. 2015) and Game Experience Questionnaire (IJsselstein, de Kort and Poels 2013). Current player typologies that are developed and designed to precisely work in the video game context can be put into three different categories depending on their point of view. The

first category is motivation (Sherry et al. 2006; Yee 2006; Kahn et al. 2015). The second category is traits (Nacke, Bateman and Mandryk 2011; Yee and Duchenaut 2015<sup>5</sup>). The third is preferences (Vahlo et al. 2017). Common to all these categories and player typologies is that they all attempt to shed more light on what psychological variables are at play when the context is a video game and to increase our knowledge of one of the biggest phenomenon of this digital era. However, current player typology literature focus on what types of experiences players have while playing games and then attempt to concretize them as varying player types. (Hamari and Keronen 2017)

The Trojan Player Typology is a scale developed to broaden the horizon of player typology scales by being validated in two different genres of games (Kahn et al. 2015). Kahn et al. (2015) argue that the problem with many contemporary player typology scales is their limited focus on the specific game genre of player cultures. The Trojan Player Typology's aim was to create a scale that is simultaneously validated across game genres and geological cultures. For this reason, the games *League of Legends* (Riot Games 2009), a multiplayer battle online arena game, and *Chevalier's Romance Online 3* (KingSoft 2009), an MMORPG, were chosen as they both are immensely popular. *League of Legends* is the most played video game in the world and *Chevalier's Romance Online 3* has been immensely popular in China and other Asian regions. Kahn et al. (2015) argued that while other player typologies are validated in specific genres, others are only relying on self-report measures (e.g., Sherry et al. 2006). Combined with a survey to the players, researchers had access to server logs from both games, allowing them to behaviorally validate their scale and find correlations between six player orientations (socializer, completionist, competitor, escapist, story-driven and smarty-pants) that emerged from the data. In the study, a 20-item questionnaire was used to measure playing motivations and these items were part of a larger questionnaire.

Game Experience Questionnaire is a scale developed by IJsselsteijn, de Kort and Poels (2013) to measure player's game experience right after a game-session. Game Experience Questionnaire has three modules (Core, Social Presence and Post-game) and first two ask how the respondent felt while playing the game and final module after the game session

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<sup>5</sup> <http://quanticfoundry.com/> Accessed 23.02.2017.

is over. These modules each assess game experience from different points of view to build a comprehensive picture of one's experiences in a game. Core module evaluates game experience on seven components: immersion, flow, competence, positive and negative affect, tension and challenge. The social presence module is an optional one, as it requires at least one the three options to be true, where the respondent has interaction with social entities: virtual, mediated or co-located. The post-game module asks about respondent's feelings right after the game session has ended. Game Experience Questionnaire is aimed to be used in lab settings where researchers can administrate the questionnaire and make sure that the questionnaire is filled correctly per guidelines. In some cases, respondents are asked to fill Game Experience Questionnaire multiple times over a longer time period to see any variations and changes in game experiences.

Bartle's (1996) player taxonomy was one of the first attempts at trying to understand video game players' behavior and motivation to play a game. Bartle categorized Multi-User Dungeon (MUD) players into four distinctive types in a two-axis graph to demonstrate the differences between types of players. The famous division of Achievers, Explorers, Killers and Socializers each inhabit one corner of this graph. The horizontal axis has players in the other end and game-world in the second. The vertical axis has acting and interacting as extreme ends. Bartle also used a pack of cards to illustrate metaphorically what each role does: "achievers are Diamonds (they're always seeking treasure); explorers are Spades (they dig around for information); socializers are Hearts (they empathize with other players); killers are Clubs (they hit people with them)." This division of and attempt at understanding more about the players of online games is often regarded as the starting point for player motivation studies from multiple points of view (Bateman, Lowenhaupt and Nacke 2011; Yee 2007).

BrainHex is a neurobiological player typology survey developed by Nacke, Bateman and Mandryk (2014). BrainHex is a direct continuation of demographic game design models (DGD1 and DGD2). DGD1 was itself based on Myers-Briggs Type Indicator (MBTI). The MBTI is a broadly used psychological typology, which places the respondent between four axes that each assess opposite ends of a psychology type (Myers and Myers 1995). Researchers attempted to transfer the context of MBTI to video games with the addition of hardcore versus casual division. DGD1 presented four different player types based on the sets of axes used in MBTI. These are conqueror, managers, wanderers and participants. DGD2 also presented four different player types, but it was more based on

Temperament Theory, that related to a skill set and are: logistical, tactical, strategic and diplomatic. As BrainHex is a continuation of DGD1 and DGD2, it is also based on neurobiological insights (see Bateman and Nacke 2010). BrainHex identifies seven archetypes of players based on different traits a player has: seeker survivor, daredevil, mastermind, conqueror, socializer and achiever. Authors remark that “BrainHex is, however, an interim model – it is hypothetical in nature, and exists primarily to further the investigation of possible traits that could be used for the construction of a more robust future model.” (Nacke, Bateman and Mandryk 2014, 58). This means that BrainHex is under development constantly, much like Yee and Ducheneaut’s (2015) Quantic Foundry. Furthermore, in their article “BrainHex: A neurobiological gamer typology survey” authors use multiple different divisions to present how the four MBTI axes are divided in the BrainHex categorization.

Yee has been studying player motivations for over a decade. He started his research with the Daedalus project in 2002 and put it into hibernation mode in 2009.<sup>6</sup> The Daedalus project was surveying players of most popular MMORPGs in USA. Yee managed to get over 35 000 answers over those years. The sheer amount of answers and the rise of MMORPGs in the first years of this millennia meant that Yee was able to draw numerous conclusions. These conclusions have then been turned into multiple academic publications, including his often-cited scale and articles around it. Yee’s scale is a 39-item survey to map out respondent’s preferences in online games. However, as other articles point out this scale has been validated only in one genre, MMORPGs (Bateman, Lowenhaupt and Nacke 2011). Yee’s work on player motivation is a successor to Bartle’s player taxonomy as Yee argued that Bartle’s types were in fact housing more than one type of a player. For this reason, it was necessary to widen the range of motivations of play to make such studies more accurate. In 2012, Yee, Ducheneaut and Nelson used this 39-item scale for cross-culture validation by surveying players of *WoW* in USA and *Chevalier’s Romance Online 3* in China. Yee has after the Daedalus project moved on to develop and maintain his new player motivation scale, Quantic Foundry, together with Ducheneaut. Their new

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<sup>6</sup> <http://www.nickyee.com/daedalus/archives/001647.php>, Accessed 17.02.2017.

scale is mapping players across genres leaving his scale valid for use in contemporary studies of MMORPGs.

## 2.4 Combining Player Orientations and Capitals

Yee's (2007) scale consists of three main components and to a total of ten subcomponents. These main components are *achievement*, *social* and *immersion*, and each has distinctive differences between them. For example, a person with a high *achievement* score might focus on tackling difficult content to earn power or status, whereas a person with a high *social* score might focus on helping and chatting with other players.

This study starts the exploration with *achievement* player orientations, moves then to *social* and lastly to *immersion* and present each of the subcomponents one by one. These are for *achievement*-oriented: *advancement*, *mechanics* and *competition*. *Social*-oriented players can score high in *socializing*, *relationship* and *teamwork*. Players that focus on *immersion* can have high score in each of the following subdimension: *discovery*, *role-playing*, *customization* and *escapism*. The subdimensions are not mutually exclusive, however. The play can, theoretically, score high in each of the subdimensions. The lack of access to the *FFXIV*'s server data for behavioral validation, means that the respondents are expected and trusted to answer the questions truthfully.

The research model for this study is complex as each of the subdimensions' relation to avatar's capital types is measured. Figure 1 illustrates the simplified research model, where each of the player orientation components are predicting the capitals avatar has.

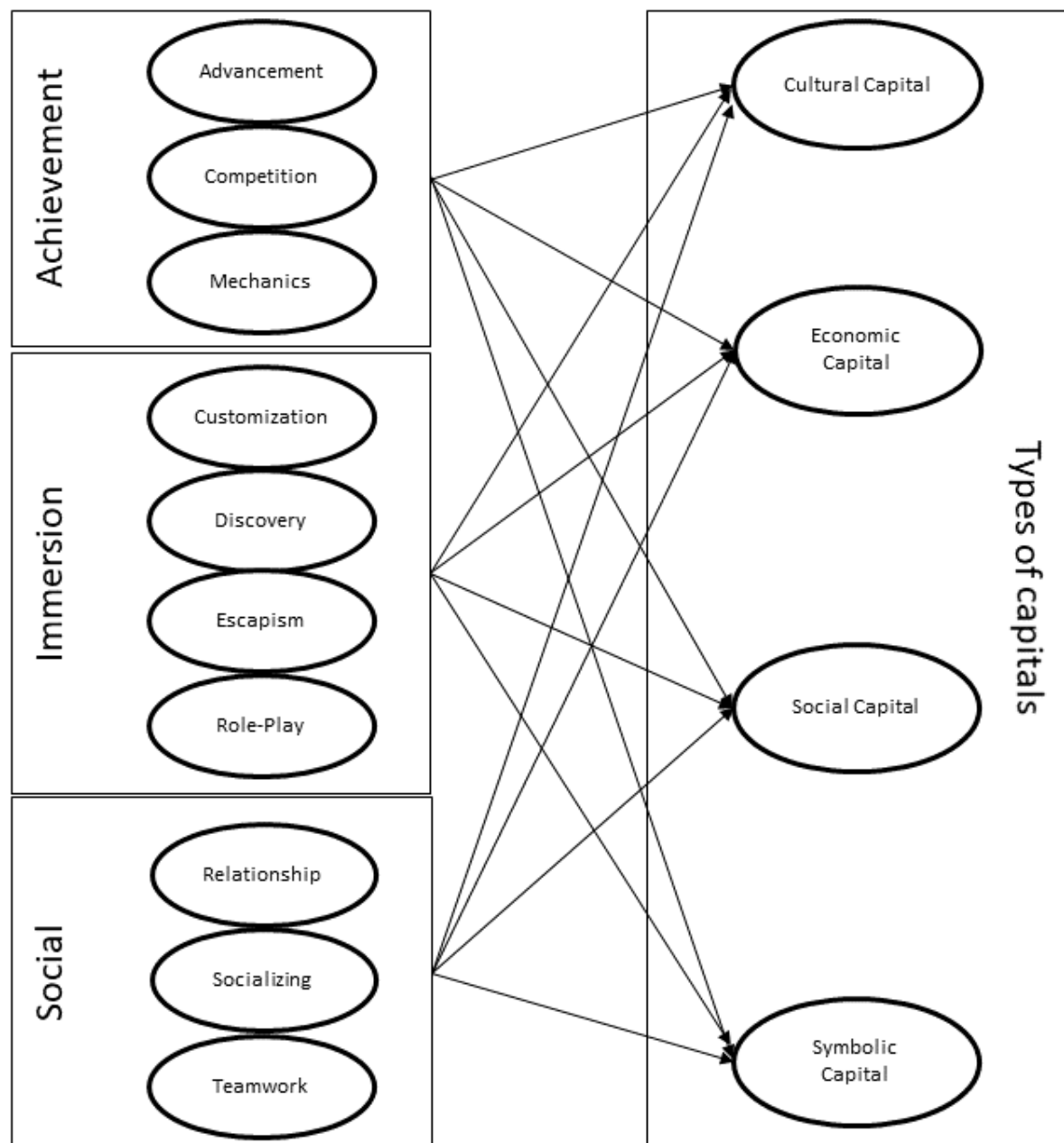


Figure 1

### 2.4.1 Achievement

*Achievement*-oriented players are focused on advancing oneself in one or more aspects of a game (Yee 2007). For example, they might be more prone to focus on optimization, competition between players and progress in order to accumulate in-game recognition in the form of statuses, such as unique gear or rare titles. Based on this definition these players most likely have higher amounts of economic and symbolic capital. Economic capital in the form of liquid assets to be used to pave the way for progression, optimization

and competition in the form of access to gear, consumables and high status for example. *Achievement*-oriented people are interacting with the game world in order to understand how it works to advance the player's goals, comparable to BrainHex model's *achiever*-component (Yee 2007; Nacke, Bateman and Mandryk 2014). Symbolic capital might come from the in-game rewards that most players do not have, such as aforementioned rare titles, vanity items or unique gear. This can be then turned into economic capital by being powerful enough to drop one team member and sell the last team spot to a stranger, or in other terms, to be able to carry less advanced players. The Figure 2 shows theorized positive associations with different subcomponents and types of capitals, that are explained below.

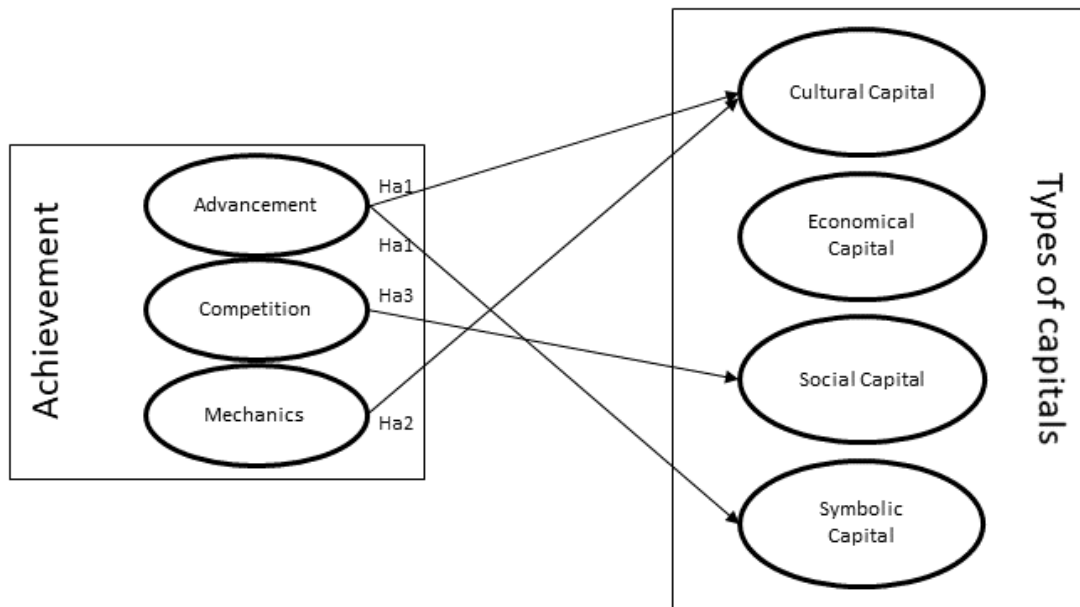


Figure 2

*Achievement-advancement*-oriented players have been described to have the desire to progress, gain power, the accumulation of in-game symbols of wealth or status (Yee 2007). In *FFXIV*, these aspects can be manifested in the following ways. Progress can mean reaching the maximum level, acquiring better gear or reaching certain goals in the game. Power can mean reaching acquiring more powerful gear, becoming wealthier and being well-known. Accumulation in this context can mean anything from accumulating better gear, currencies, achievements or vanity items (e.g. pets, mounts, titles). The study by Sherry et al. (2006), has *challenge*-component that is comparable to Yee's *advancement*. Status might be about having a certain position in a community or group or having unique gear or vanity items. Based on these brief descriptions of player motivation these players



can possess symbolic and cultural capital. Cultural capital might be gained when a player seeks to be and know how to become more powerful, progress, accumulate in-game wealth or status. All these require knowledge of *FFXIV* that is collected through playing the game over several days or weeks. Symbolic capital might be accumulated when the progress, accumulated power, wealth or status is acknowledged in *FFXIV*'s various communities, thus giving these feats credibility. Although wealth is directly connected to the economic capital, it is not usually the main focus, but something that is accumulated either as a requirement to be able to afford consumables, repairs, items or as a by-product with access to hard to reach and much sought after items.

Ha1: High *achievement-advancement* orientation is positively associated with cultural and symbolic capital.

*Achievement-Mechanics*-oriented players have an interest in understanding and analyzing how *FFXIV* functions in order to optimize personal performance. These include increased focus on numbers, optimization, templating and analysis of various in-game aspects. (Yee 2007) In *FFXIV*, this can be concretized as the willingness to take a closer look at combat logs, pushing game world boundaries, exploring how actions and skill work and trying to find some ways to push character's limits in order to more efficiently deal damage in various settings, for example. In *FFXIV*, these aspects most commonly are in the form of combat log analysis, skill set and rotation templating in order to optimize performance by analyzing numbers and possible other effects skills have. This player orientation is related to the BrainHex (Nacke, Bateman and Mandryk 2014) model's *mastermind*-component. In *FFXIV*, there are various systems where optimization and an understanding of the game's systems are important. These are PvE content where character's optimization of damage output directly affects the performance of the group or success chance when soloing; crafting where the crafting itself has multiple skills that when used optimally increases both the success chance and the chance to craft a high-quality item; and lastly gathering where high-level gathering also has multiple skills that affect what kind of items player receives. Also, this knowledge of mechanics includes player gear as a certain number of stats may change rotation significantly. This means that each aspect of *FFXIV* that focuses on the mechanics likely accumulate cultural capital. As a player's knowledge of *FFXIV* increases, so does the performance and output of player's character increase.

Ha2: High *achievement-mechanics* orientation is positively associated with cultural capital.

The last subcomponent in *achievement* is *competition*. *Competition*-oriented players are interested in challenging and competing with other players. These players might be more likely challenge and compete with other players using provocation, domination and challenging others. (Yee 2007) This narrows down the focus mainly to PvP aspects of *FFXIV*. Even though the player is in direct contact with other players the goal is to defeat other players in some way. For example, winning a duel or beating an enemy team in a PvP match are ways to dominate and challenge other players. *Competition*-orientation is comparable to BrainHex (Nacke, Bateman and Mandryk 2014) model's *conqueror*-component and Trojan typology's (Kahn et al. 2015) *competitor*-component. *FFXIV* has public leaderboards for the highest ranked PvP players in the Feast playlist. Also, players can compete in-game in the Palace of the Dead dungeon that has a total of 200 levels currently. There are public leaderboards to track who has reached the highest floor in the Palace of the Dead either solo or in a group. These ways of competing can accumulate social capital as when players communicate with each other, join groups to do a certain type of content, they gain and use social capital. In the two examples presented, they are bridging social capital because the player is meeting and chatting with other players while competing with them. This subcomponent can be seen as the opposite of the *social-teamwork*.

Ha3: High *achievement-competition* orientation is positively associated with social capital.

## 2.4.2 Immersion

*Immersion*-oriented players focus on finding how the game world presents itself from various points of view and what it offers (Yee 2007). This includes finding information regarding the game's lore, exploring game areas and the story of the game. Another aspect is to find a game style that enables the player to relax while playing the game. This sets higher pressure on game world's coherence because immersion breaking bugs, objects, mechanics or even NPCs can reduce the stress-relief factor quite a bit. *Immersion*-orientation is related to BrainHex (Nacke, Bateman and Mandryk 2014) model's *seeker*-component. From this, it can be hypothesized that *immersion*-focused players may accumulate more social and cultural capital than other types of capitals. Social capital stems from the

everlasting presence of other players while playing *FFXIV*, role-playing is usually performed by multiple players simultaneously. Cultural capital might be accumulated gained when a player learns about *FFXIV* and its functions through exploration, discovery, story, the character's appearance is customized to fit into the game world or to fit a fantasy character. Figure 3 shows the theorized positive associations that are explained in more detail below.

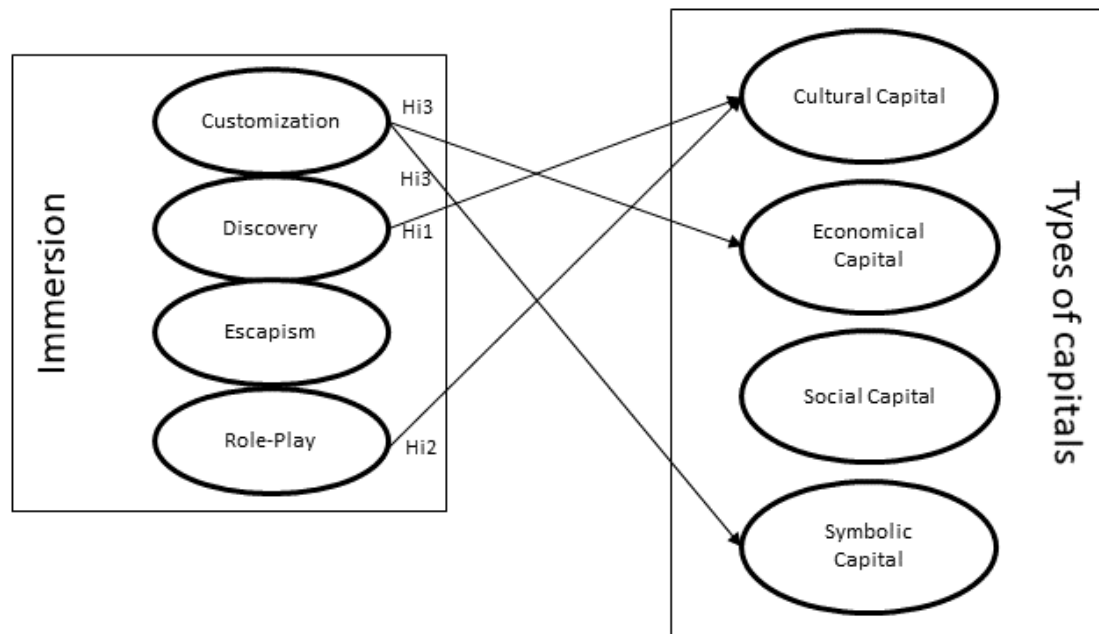


Figure 3

*Immersion* is divided into four different subcomponents. The first of these components is *discovery*. Players with higher *discovery*-orientation are expected to desire to explore the game world, find hidden things and learn about the lore of the game. This means that the player spends more time traveling the game world and going through each and every corner to find things many, if not most, other players have missed. These include additional lore pieces, gorgeous landscapes, unique or rare items. Trojan typology's (Kahn et al. 2015) *story-driven-component* and *arousal-component* presented in a study by Sherry et al. (2006) are comparable to *discovery*. In *FFXIV*, there are many lore tidbits available when talking to various NPCs, or exploring the area and being a part of a dynamic event called F.A.T.E. (Full Active Time Event) that usually say something about the local area's history or everyday life in the description. Players with a high score in *discovery* gain enjoyment from exploring the world as a player and will gain cultural capital while doing so. Cultural capital might be accumulated from the sheer amount of knowledge one gains from playing *FFXIV* over time, but from a different aspect than *achievement-mechanics*

(discussed above) and *social-teamwork* (discussed below). These players might not be that interested in figuring how *FFXIV* works and functions at the numerical level or use their knowledge of their character's skills to advance their group's goals, but rather want to know what is within the game world "out there". These players might also be more prone to enjoy single player RPGs also.

Hi1: High *immersion-discovery* orientation is positively associated with cultural capital.

The second subcomponent of *immersion* presented is *role-playing-orientation*. *Role-playing-oriented* players focus on the story line, character history and fantasy of the game (Yee 2007). The storyline and character history, both happen at two different levels. The first level is what *FFXIV* offers to all players. This includes NPCs, the names of the cities and quests, for example. These are all shared with each player and are mostly static and do not change often or at all, regardless if the player has completed certain quests or events. The second level is what the players create based on their knowledge of *FFXIV*'s fantasy, that is then again comprised of the former level. After players know what kind of NPCs inhabit the game world, they can start creating characters and their history to be canon, true and believable to *FFXIV*'s lore and fantasy. In some cases, the exact history of the player character in MMORPGs is left open, or not told at all leaving role-players a lot of tools and ways to build their character. These players might gain cultural capital in a similar fashion as players in the *discovery* subcategory, but this time the accumulation of cultural capital would happen from the avatar's point of view. Even though these two categories are closely tied to each other, it does not mean that having a high score in either category leads to a high score in the other.

Hi2: High *immersion-role-playing* orientation is positively associated with cultural capital.

The third subcomponent in *immersion* is *customization*. Players with a high score in this subcomponent want to be able to customize their character as much as possible. This includes the look of the gear, fitting vanity items (mounts, titles pets) and class. (Yee 2007) In *FFXIV*, there are many ways to customize one's character. It is possible to change the look of gear without any penalty to its stats, earn over 300 different titles to choose from, over 400 pets to accompany and over 70 mounts to ride around with. On top of that, it is possible to change character's hairstyle, make-up, visual facial features in-game. For more detailed customization, such as race change, or physical appearance,

such as height, can be changed by buying an item for real money from *FFXIV*'s web shop. Because presenting one's character in an ideal or a certain way is popular in *FFXIV*, new-est gear that is aimed and designed for customization purposes are usually made by the players themselves via crafting. This can lead to extremely high prices for these new items due to very limited supply and extremely high demand. Another layer of customization is player housing. In *FFXIV*, there are house plots in three different sizes available to players and free companies alike. These can be heavily modified and most wanted, rarest and newest furnishing items are expensive. Players with a high score in this subcategory might gain symbolic capital and possibly spend economic capital to reach satisfactory look for their character. Symbolic capital, therefore, might come from the attention the other players give and the player can be recognized in different ways. It is somewhat popular to try to imitate one's favorite character from another game, movie or comic. Since players have a lot of freedom in *FFXIV* to choose how they want their characters to look like, the scale of different combinations one can see while strolling around in main hubs is astounding. To reach that satisfactory look, one must be willing to spend economic capital in order to do so. Some items needed to craft certain popular customization items have really limited availability in terms of places of acquisition, even though the actual numbers of items in the market are solely in players' hands.

Hi3: High *immersion-customization* orientation is positively associated with economic and symbolic capital.

The last subcomponent in the *immersion* is *escapism*. This subcategory is about avoiding to think about real life issues. Players with a high score in this subcategory might use the game as a place to wind down after a school or work day and to relax. (Yee 2007) Similarly, it can be thought, that these players want to have a place to chat with other players that are most likely not part of everyday offline life. Topics in these discussions rarely touch the subject of real life. For this reason, having any direct connection to capitals is hard to theorize. Players with a high score in this subcategory can have almost any combination of high scores in capitals as the high diversity of MMORPG players makes it hard to pinpoint it in a definite way. One player can get satisfaction from beating other players in PvP, some might reach the same feeling from taking a relaxing walk around *FFXIV*'s zones and so on. This means that players do not necessarily gain any certain capital or capitals, but are looking to play *FFXIV* for various other reasons that are summarized with this subcomponents' points with others. Trojan typology's (Kahn et al.

2015) *escapists*-component and the study by Sherry et al. (2006) which presented *diversion*-component are comparable to *escapism*.

### 2.4.3 Social

*Social*-oriented players focus on communicating and collaborating with other players, both while playing the game and while offline through another medium, such as forums, VOIPs or chat groups. *Social* component houses players who rely more on other players for their game enjoyment than *achievement* or *immersion*-oriented players. Socially focused players will have random chats with strangers, are discussing personal matters with close in-game friends, regardless if the friendship started in-game or not and do content that requires a full team of players to complete. (Yee 2007) *Social-interaction*-component presented in the study by Sherry et al. (2006) and Trojan typology's (Kahn et al. 2015) *socializers*-component are related to *social*. These players most likely have higher amounts of social and symbolic capital than other types of capitals. Social capital is likely accumulated from having bridging or bonding social capital, based on the relationships player has formed over the time spent playing *FFXIV*. Additionally, social capital can be accumulated while in managerial positions, such as raid leader, public relations person and so on. Players in management positions might have high amounts of symbolic capital as they are recognized and respected. Furthermore, through continuous communication one player might be recognized as a certain type of a player (jokester, serious, farmer and so on), thus having more likely high amounts of symbolic capital. Theorized positive associations are illustrated in Figure 4 and explained below the figure.

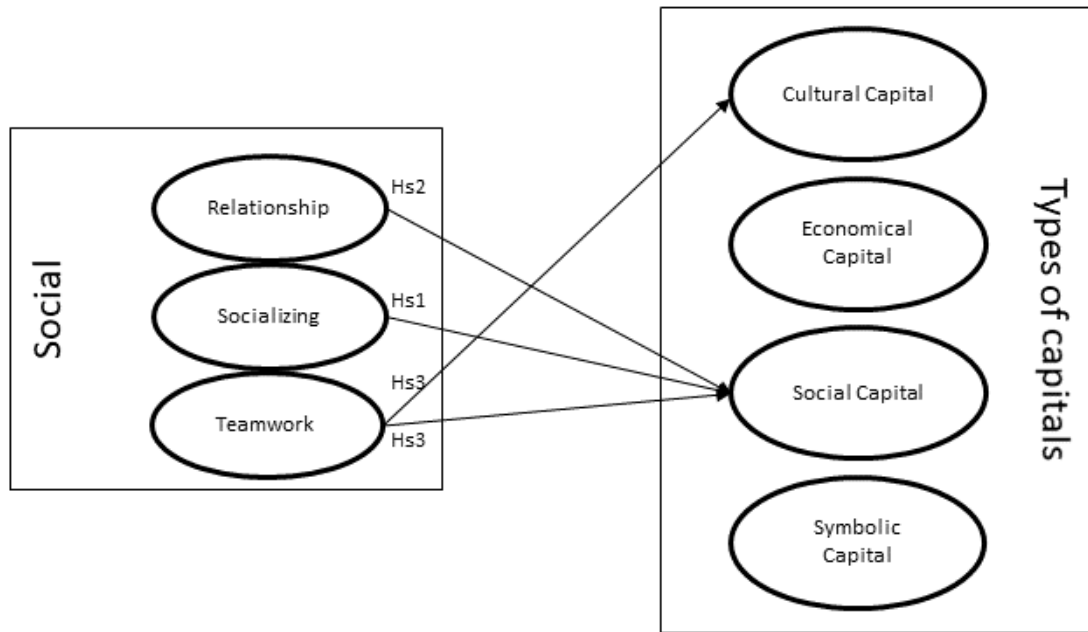


Figure 4

*Social*-orientation is divided into three subcomponents: *socializing*, *relationship* and *teamwork*. People with a high *socializing* score are interested in helping and casually talking with other players that might lead to an in-game friendship. (Yee 2007) In an MMO setting the possible encounters and ways where and how players can, and sometimes are even encouraged to, interact with each other are nearly limitless. Someone can look for a helpful group of players to tackle daily activities with or just have a place to chat and share impressions with. Whereas others are more goal-oriented and look to be a part of a group that works together. In that example, communication is often expected in order to better perform as a unit. This type of social interaction and motivator are manifestations of Putnam's (2000) concept of bridging social capital, where a person creates bridges all around the world by chatting and talking with other persons where the relationship level stays usually at 'acquaintance' or in the MMORPG context 'co-player in the same community'.

Hs1: High *social-socializing* orientation is positively associated with social capital.

The second subcomponent is *relationship*. These players seek and want more from the in-game relationships than *social-socializing*-oriented players. They want relationships to be more meaningful. This requires that the relationships evolve and move from acquaintance to friend or even spouse. These relationships are much more personal where self-

disclosure happens and players in this subcategory will, when needed, find and give support to others at a personal level. BrainHex (Nacke, Bateman and Mandryk 2014) model's *socializer*-component is related to *relationship*. In *FFXIV*, this can mean that one motivates the others to continue playing or to finish a long task (such as reaching maximum level), listen when one has a bad day and comforts. This level of communication will most likely happen outside of *FFXIV* through another medium, WhatsApp, Facebook, Discord, SMS, phone call, Skype and so on. However, even though the relationship has broken the barriers of the game world, players still interact, co-play and chat in *FFXIV* in regular fashion. This subcomponent is very close to Putnam's (2000) bonding social capital and might be gained and spent when supporting or being supported by close in-game friends.

Hs2: High *social-relationship* orientation is positively associated with social capital.

The third subcomponent in the *social* is *teamwork*. Players with a high score in this subcategory gain satisfaction when co-playing and collaborating as part of a group in order to gain or achieve something as a unit. In *FFXIV*, this type of description narrows the context of the subcomponent to PvE, role-playing, trading and other player-made happenings in the game. In this case, players interact with each other in order to work with each other instead of against each other, as is the case with players with a high score in *achievement-competition*. In a way, *social-teamwork* can be seen as an opposite of the *achievement-competition*. There is, however, one big difference in how these players can accumulate capitals. Cultural capital is most likely accumulated more than other types of capitals in this subcategory because gaining knowledge of how *FFXIV* works (see *achievement-mechanics*) will help the unit, or group, to achieve its goals. Even though there are theory crafting in PvP in *FFXIV*, it receives much less content than PvE. Thus, it is necessary to remove cultural capital as something players can accumulate in PvP, because the net amount does not increase over time. The other type of capital players in this subcategory can gain is social capital. Players usually communicate with each other in various ways, usually through a voice chat, on how to proceed and beat encounters and challenges laid in front of them.

Hs3: High *social-teamwork* orientation is positively associated with social and cultural capital.



### 3 RESEARCH METHODS

This chapter presents the game of which respondents are playing, or were within two months, actively playing before talking about the development of the survey followed by demographics and other descriptive statistics of the respondents. These are followed by analysis methods subchapter before concluding with assessing the validity and reliability of the data gathered.

#### 3.1 Game

*Final Fantasy XIV* was originally launched in 2010 by Square Enix. *FFXIV* is an MMORPG that bears many resemblances to other Final Fantasy games, such as similar monsters, familiar names, style of narrative, character development and descriptions of classes and jobs. *FFXIV* received a lot of criticism soon after its launch. After a disastrous start and major changes in the developer team, the game was relaunched in August 2013 to PlayStation 3 and PC platforms and has been very successful ever since. Currently, *FFXIV* is operating on PlayStation 4 and Mac platforms in addition to the original two. *FFXIV* received its first expansion, Heavensward, in summer 2015 and now second expansion, Stormblood, is planned to be released summer 2017.

*FFXIV* follows the steps of *WoW* and other MMORPGs in multiple ways. Players assume a role of an adventurer that travels around the continent to complete heroic deeds and help those who are in need. Gameplay is heavily story-driven, as is the case with *Star Wars: The Old Republic* (BioWare 2011) and *Guild Wars 2* (ArenaNet 2012), for example. Story-heaviness is also derived from *FFXIV* being part of the Final Fantasy brand of games. Combat is divided into “the holy trinity” where players’ class, and later job, dictates which job it is suited for. The holy trinity roles are healer, tank and damage dealer, that *WoW* and *Star Wars: The Old Republic* follow too. The player’s character is referenced as the Warrior of Light, a person who has the blessing of Echo and is responsible for saving the continent of Eorzea from any threat, whether they came from the sky, sea, stone or from other groups of people that seek to dominate all. *FFXIV*’s focus is on the story, fantasy, lore and thus in PvE content. *FFXIV* receives a new content patch approximately every 12 weeks that continue the story in addition to new content, tweaks and items.

## 3.2 Measurement

A quantitative online survey was developed to answer research questions and fulfill aims of the study. Existing measurement instruments were used (Williams 2006; Yee 2007). The full list of items that were part of the data analysis can be found in the appendix. In the appendix, there are columns for notes, item and answer options with bolded text to indicate a section change.

Developing areas of the survey that do not have existing research in similar context has required a careful insight into how *FFXIV* operates. There are currently no standardized and validated measurement tools for other types of capitals than social capital (Williams 2006). Therefore, developing the items for the missing areas has required hands-on experience with *FFXIV*. These items range from social status to economic status to recognition either in-game or in external social media. Whereas some studies have had access to server data (Billieux et al. 2013; Kahn et al. 2015) or used publicly available character data (e.g. Canossa, Martinez and Togelius 2013), but there was no such co-operation possible for this study.

The survey was administered through SurveyGizmo online questionnaire tool. The survey itself was divided into three main sections with each having multiple pages. The survey had eleven pages in total, including introductory and a “Thank you!” page. After introductory page, respondents were asked to fill information regarding their offline life in one page and character and game’s impact on offline life in the second. Next, there are four pages dedicated to one capital each per page and Yee’s (2007) motivation scale’s item distribution was copied to minimize changes and were divided into three separate pages. Lastly, there was a page thanking respondents for their time and patience for filling out the survey and informing them about posting results in used social media channels after analysis part is done.

The survey items were in various forms depending on the type of the item. Age and items with optional text chat to give additional information regarding gender, in-game methods for gaining, spending, estimated amounts of commonly used currencies and foci have an open text box. Country of the current location, a number of achievement points, categories for methods of gaining and spending in-game currencies have a dropdown menu for better usability. Items, where respondents were asked to list various vanity items they have and

main foci, were multiple choice items. The rest of the items in the survey are using 5-point Likert-scale rating. Each survey took around 20 to 25 minutes for participants to fill on average.

The social capital section is an adjusted version of Williams' (2006) online social capital scale. Changes were made to fit the social capital section to only the community of *FFXIV* instead of any possible relationship in a digital environment, such as Facebook et cetera.

The economic capital, cultural capital and symbolic capital section's items were formulated by the author, based on the theories and definitions presented throughout in the chapter 2. The reason is that, none of this has previously been studied in this way nor as part of bigger "capital" exploration. Economic capital investigates how much a player has something in terms of economic assets and resources, spends and gains different currencies in *FFXIV*, that are in the form of gil or changeable to it directly or indirectly with one step in the middle at max. Cultural capital measures player's knowledge of *FFXIV* from various points of view following definitions of cultural capital by Bourdieu. Symbolic capital has been operationalized to measure the legitimization of other capitals, such as recognition in-game through various feats.

### **3.3 Participants**

The players of *FFXIV* were recruited through various online websites and a chat program where they can talk and exchange feedback with each other. Used websites were game's official forums' English speaking section, a subreddit dedicated to *FFXIV*, a Discord (a program that combines VoIP chat with group instant messaging functionalities) server dedicated to *FFXIV* and three different Facebook groups dedicated to *FFXIV*: global, where players of *FFXIV* come together from all around the globe to share their feedback, and talk about various topics related to *FFXIV*; a group for Nordic players of *FFXIV*; and finally, a group for Finnish *FFXIV* players. Each group's moderators or admins were contacted beforehand and asked for permission to post the survey. After posting about the survey its visibility depended upon the functionalities of how each platform handles posting. In official forums, always the threads with latest posts are on the front page for more visibility, whereas in Facebook groups and Reddit, a thread's or post's visibility is depending upon the amount of posting and reactions (e.g. "liking" the post or up-/downvot-

ing the thread) within a certain timeframe. Discord's text chat functions much like traditional IRC, always the newest posts are visible at the bottom, otherwise users have to scroll up to see older posts.

The survey was open from March 16<sup>th</sup> to April 14<sup>th</sup>. At the time of taking down the survey, there was a total of 1002 completed responses and after filtering out incorrect answers for a check-up item, a total of 905 completed answers remain. The hosting website, SurveyGizmo tracked "referrer", or the source from which the participant was redirected to the survey page. 711 out of 905 (78.5%) answers had their source page listed. 212 people were redirected from Facebook, 215 from Reddit and 284 came from official forum links. Missing 194 sources could be from Discord-program, shared links (direct link to survey in a text form) or for some reason not-traceable.

The majority of respondents are male, 574 out of 905 (63.4%). Average age of respondents is 27.2 (StdDev = 6.0; Median = 26), with the youngest being 14 and the oldest 55 years old. Almost half of all respondents are from USA (447, 49.3%), United Kingdom (91, 10%) and Canada (90, 9.9%) following next. Other larger represented countries are Germany (40, 4.4%) and Finland (31, 3.4%) and the rest of the countries comprising 22.7% of the answers. In similar fashion, almost two-thirds (599, 66.1%) of respondents reported playing on the North American data center, while 274 (30.2%) plays on the European data center with a minority of players on Japanese data center. A bit over half are employed, either full-time (363 responses, 40.10%) or part-time (99 responses, 10.90%), 244 (26.90%) are students, with 144 (15.90%) being unemployed and rest of the players are disabled, retired, stay at home parents, or working alongside studies. A Large majority of players are playing using PC (675, 74.5%) and PlayStation 4 (224, 24.7%). An extremely small minority of players are playing using a Mac (2, 0.2%) with a total of 5 (0.6%) playing on the PlayStation 3. Over 80% (750 out of 905) of respondents placed themselves on a left-right axis to be in the centre-left area. Similarly, over 85% (785 out of 905), on a conservative-liberal axis, stated they think being in the middle-liberal area.

Over a fifth of respondents (204, 22.50%) are at veteran rank 13, implying they have been subscribed to *FFXIV* for at least three years and 92 (10.20%) are at the current maximum veteran 14, which requires being subscribed for four years. This is possible because players can pay subscription fees beforehand up to 6 months. *FFXIV* was re-released three years and eight months ago at the end of August 2013. Other veteran ranks have more

even representation. Respondent spends almost 25 hours on average playing *FFXIV* in a seven-day period. However, half of the players reported playing between 11 and 30 hours per week, with four categories included (divided into 5-hour sections) having almost identical representation, ranging from 12.00% to 13.80% of answers. This high number of in-game active hours and veteran rank is further mirrored in the activity regarding *FFXIV* themed social media channels, as the vast majority (636, 70.20%) reported visiting these sites at least couple times a week (“Almost daily” answer).

The majority of in-game avatars created are female (540, 59.60%), which means that to some degree male players are playing as a female character. Also, feline-like race, Miqu’té, is the most popular with 292 (32.20%) avatars, followed by human-like race, Hyur, with 183 avatars and horned and scaled race, Au Ra, with 183 avatars. The childlike race, Lalafell, is mainly played by 119 (13.1%) players, with elf-like race, Elezen, having 79 (8.70%) players and large, muscular race, Roegadyn, with smallest representative sample of 50 (5.50%) players.

### **3.4 Analysis Methods**

The data was analyzed using SmartPLS 3.0 program (Ringle, Wende and Becker 2015; Lowry and Gaskin 2014). The method for analysis was the partial least squares algorithm (PLS-SEM) because PLS-SEM is suitable at the prediction of relationships between different variables, when research model includes both psychometric reflective latent variables and formative variables (Hair et al. 2014). Formative variables are constructs that are not expected to correlate and they can be measured directly, such as the age of the respondent or time taken to fill a survey. Reflective latent variables are constructs that cannot be measured directly, and are expected to have high inter-correlation. Reflective latent variables are used in studies and methods that utilize psychometric measurements. In SmartPLS 3.0, the research model presented in Figure 1 was re-created, but in more detail. Cultural, economic and symbolic capital were mapped as formative variables, as they had at least one or more items that were formative and non-psychometric in nature investigating amounts of different assets of an avatar.

### 3.5 Validity and Reliability

To confirm the convergent validity for each latent variable, the average variance extracted (AVE) and composite reliability (CR) were calculated. To verify discriminant validity, Fornell-Larcker criterion and heterotrait-monotrait (HTMT) values were calculated. AVE value should be greater than 0.500 to indicate the convergent validity and the CR value for reliability should surpass 0.700 (Fornell and Larcker 1981). In the Table 1 are the values for AVE and CR after removing low factor loading items from the construct list.

	CR	AVE
<b>Achievement</b>		
Advancement	0.833	0.500
Competition	0.783	0.555
Mechanics	0.858	0.602
<b>Immersion</b>		
Customization	0.851	0.657
Discovery	0.872	0.631
Escapism	0.822	0.608
Role-Playing	0.831	0.554
<b>Social</b>		
Relationship	0.895	0.740
Socializing	0.884	0.658
Teamwork	0.892	0.805
Cultural Capital	formative	formative
Economic Capital	formative	formative
Social Capital	0.926	0.512
Symbolic Capital	formative	formative

Table 1. Composite Reliability and AVE.

To satisfy the Fornell-Larcker-criterion, the correlation between a construct and every other construct must be less than the square root of AVE for said construct. In Table 2, it can be seen that each value falls below both the 0.9 and 0.85 thresholds. In order to satisfy the heterotrait-monotrait criterion to assess discriminant validity, each value must not be higher than 0.85 (Henseler, Ringle and Sarstedt 2015). Table 3 shows that HTMT criterion is satisfied for each construct. HTMT discriminant validity assessment does not take into account formative variables (cultural, economic and symbolic capitals), and therefore they are missing from the table.

The filtered sample size of 905 respondents greatly exceeds lower limits set for validity. SEM that has constructs with three to four items, minimum of 150 respondents is needed for validity (Anderson and Gerbing 1984). Bentler and Chou (1987) propose a much stricter minimum number of respondents, five cases per observed variable. In this study, that number would be 555 respondents.

	Advancement	Competition	Mechanics	Customization	Discovery	Escapism	Role-Playing	Relationship	Socializing	Teamwork	SC	CC	EC	SC	SYC
Advancement	0.707														
Competition	0.512	0.745													
Mechanics	0.593	0.432	0.776												
Customization	0.217	0.082	0.126	0.810											
Discovery	0.090	0.014	-0.002	0.401	0.794										
Escapism	0.103	0.026	-0.021	0.233	0.229	0.780									
Role-Playing	0.058	0.028	-0.021	0.365	0.477	0.383	0.745								
Relationship	0.196	0.196	0.140	0.270	0.259	0.271	0.331	0.860							
Socializing	0.152	0.125	0.068	0.262	0.352	0.273	0.352	0.525	0.811						
Teamwork	0.275	0.231	0.305	0.134	0.066	0.062	0.099	0.367	0.488	0.897					
Cultural Capital	0.239	0.103	0.196	0.525	0.508	0.331	0.590	0.399	0.401	0.200					
Economic Capital	0.352	0.321	0.367	0.182	0.047	0.043	0.026	0.190	0.095	0.229	0.187				
Social Capital	0.228	0.206	0.136	0.294	0.281	0.291	0.281	0.676	0.633	0.431	0.478	0.201	0.715		
Symbolic Capital	0.386	0.331	0.342	0.202	0.136	0.075	0.098	0.429	0.248	0.368	0.330	0.308	0.462		

Table 2. Fornell-Larcker criterion values.

	Advancement	Competition	Mechanics	Customization	Discovery	Escapism	Role-Playing	Relationship	Socializing	Teamwork	SC
Advancement	0.705										
Competition	0.774	0.573									
Mechanics	0.298	0.121	0.166								
Customization	0.181	0.063	0.066	0.499							
Discovery	0.190	0.074	0.109	0.327	0.315						
Escapism	0.210	0.100	0.145	0.504	0.632	0.554					
Role-Playing	0.233	0.235	0.160	0.337	0.309	0.366	0.426				
Relationship	0.224	0.252	0.158	0.338	0.449	0.372	0.473	0.611			
Socializing	0.355	0.281	0.397	0.169	0.126	0.112	0.147	0.446	0.579		
Teamwork	0.274	0.250	0.163	0.355	0.325	0.370	0.351	0.767	0.726	0.505	
Social Capital											

Table 3. Heterotrait-monotrait values.



### 3.6 Omitted items

It is noteworthy to briefly discuss the possible reasons for having to remove survey items that were for the most part from already validated scales. After the initial run of the PLS-SEM algorithm in SmartPLS 3.0, AVE values for *achievement-advancement*, *achievement-competition*, *social-teamwork*, and social capital were below the threshold. After removing items with lowest factor loadings, running the algorithm again and repeating this cycle until all AVE values exceeded the threshold of 0.500, a total of fifteen items were removed. These were five items that measured whether or not the respondent was in a managerial role in one or more communities he belongs to, six items from Williams' (2006) social capital scale that was adapted to fit the context of *FFXIV* and four items from Yee's (2007) *Motivations for Play in Online Games* scale. CR values all exceeded the threshold of 0.700.

In addition, every item in the survey about being in a managerial position were in a format, that made the analysis with acceptable values impossible. After a pilot survey (n = 32) was completed, items asking management positions and possible responsibilities that come with them were changed from Likert-scale to binary scale with "yes" and "no" being the only answering options. Because of this change, these items were not fit for the analysis model in SmartPLS 3.0. This brought down the AVE value of social capital down by a large margin. After removing these items from the variable list, six other items had to be removed in order to satisfy the AVE threshold of 0.500.

Three items that were removed from the bridging social capital section measured the respondent's perceptions of globalization of the player-base ("The people I interact with in-game makes it clear to me that people are playing this game from all around the world."), how *FFXIV*'s layer of anonymity changes the willingness to communicate behind a nickname ("I think that having a nickname in-game instead of a real name allows me to be more open in-game.") and is it easier to communicate with players in-game than with people outside *FFXIV* ("I think it is easier for me to talk with other players in-game than to people outside the game."). Based on the low factor loadings, it could be argued that players of *FFXIV* are not separated from friends and people that do not play *FFXIV* and that they do not have a definitive preference whether or not they are using a nickname while playing *FFXIV*. Another reason for low factor loadings might be that players have grown in a continuously digitalizing and globalizing world where one can find friends

and people to chat with all around the globe and where one's real name could, in the end, be just one more nickname.

Three items were removed from the bonding social capital section. The items in the bonding social capital section in general measure how close and intimate the respondent is with others in his immediate social networks. The removed items measured whether the respondent had anyone close enough to share private concerns with ("I do not have anyone in-game I feel comfortable sharing intimate personal problems with."), to do content with ("I do not have in-game friends that I could do content with.") and in-game friends that could steer the respondent to new communities inside *FFXIV* ("There are in-game friends who would recommend me to new free companies or statics."). The removed items asked the intimacy level of social networks from a private level to a more general level where someone could recommend a place in a different free company. Whereas, the other items measured more constant and everyday level of communication with the same pool of players that would be ready to defend the respondent if the situation demanded that.

From Yee's (2007) scale, four items were removed from three different categories. From *achievement-advancement*, the item "Leveling your character as fast as possible.", when asked how important it is, was removed. One reason for this removal could be *FFXIV*'s heavy focus on storytelling that starts from the first level and continues for dozens of quests even at maximum level. *FFXIV* has been receiving large patches filled with content roughly every three months after it was re-launched in August 2013. In these patches, there have always been more quests to the main story, with some side-missions from time to time that aims to add to the atmosphere of *FFXIV*'s world. Players seem to enjoy storytelling and quests more than rushing towards the maximum level, at least on their first or second job that they level up. Leveling up the avatar does not seem to be associated with advancing or becoming more powerful, but something that first has to be done with, before the access to the rare and powerful items becomes available. Other items in the *advancement* component measure more concrete ways for the player to advance and progress his avatar, such as acquiring new gear, wealth, reputation amongst players and being in an organized group that enables the access to the desired items.

The item “How often do you purposefully try to provoke or irritate other players?” was removed from *achievement-competition*. Other items in *achievement-competition* measure whether the respondent enjoys killing, dominating or annoying other players. In the same subcategory, there were items that measure how much they enjoy annoying, dominating, killing other players, but only the item about irritation and provocation had low factor loading. Maybe how respondents associate the words provoke and irritation as interactions with other players is one of the reasons for the removal. They might think that provoking is more serious than annoying or dominating other players, whereas annoying players might be associated with trolling or joking around to get a certain reaction from other players. Meaning that provoking and irritating other players might have concrete and more serious consequences than annoying other players. Thus, provoking might be associated with harsher actions than other actions towards other players in *achievement-competition*.

Two items were removed from *social-teamwork*. The subcomponent measures how important it is for the respondent to have a self-sufficient avatar and how well it can solo, would the respondent rather be grouped or soloing and how much does the respondent enjoy working with others. The items “How important is it to you that your character can solo well?” and “Having a self-sufficient character.” were removed. Coincidentally, these are also the only items with reversed scoring. These items measure how important it is to be able to solo well and have a self-sufficient character. In order to double-check the factor loadings, items’ scores were reverted back to original scores and the analysis was run again. Even after this change, factor loadings were low, and they were removed from the variable list. It seems that for players of FFXIV playing together and having a certain role in communities is more important than being able to play alone continuously. These can be the role in battle situations (tank, healer, damage dealer), gatherer or crafter. Of course, there are more narrowed roles, such as gardener, but they are not supported in FFXIV itself as they are socially agreed on the roles to share responsibilities in a community. There will be times when playing alone is the only option, but in the long run having a socially active community around is more important than doing well alone.

Two items from Williams’ (2006) bonding social capital section was removed before the pilot test because they do not have a comparable in-game manifestation. These items both touch the topic of monetary help, but because the economy is too different from real life’s economy, it was necessary to remove them. The items were “If I needed an emergency

loan of \$500, I know someone online/offline I can turn to.” and “The people I interact with online/offline would share their last dollar with me.” In *FFXIV*, there might be emergency loans in the forms of gil, consumables or items, but it is impossible to find a value that would match \$500 in terms of raw amount or the impact on the economic situation of participating entities that the loan would have. Also, the risk of having no gil in *FFXIV* is not severe, because there are ways to gain enough gil to repair and travel the continent of Eorzea constantly. Regarding the second removed item, there rarely is, as described above, a moment when someone is absolutely poor, not to mention multiple players from the same community simultaneously. Players might have a shared pool of gil and resources or have someone acting as the resource holder, but there are no situations where the last drop of gil is shared with others. In order to navigate and function in *FFXIV*, the player does not need more than couple thousand gil that can be gained from multiple activities, of which repeatable quests are the most stable method.

## 4 RESULTS

This chapter presents the statistical results from the analysis of the relationship between the player orientation in games and the capital (cultural, economic, social and symbolic) of their avatar. This chapter discusses each type of capital individually and presents positive associations with player motivation subcategories. The statistically significant levels used in the research model are marked with a single asterisk when the level is  $p < 0.05$  or with a double asterisk when the level is  $p < 0.01$ . The full results from the PLS-SEM analysis can be found in Table 4 below.

The player orientations accounted for 54.3% of the variance for cultural capital, 20.7% for economic capital, 58.5% for social capital and 33.1% for symbolic capital. Cohen (1988) suggested that if  $R^2$ -value is over 0.26, the latent variable's variance explained is substantial, below 0.26 but over 0.13 is moderate and below 0.13 and over 0.02 is weak. Thus, the  $R^2$ -values for the types of capitals each explained a substantial amount of variance. There are more recent studies (see, e.g. Chin 1998; Hair et al. 2011; Hair et al. 2013) that change the limits for the  $R^2$ -values to be considered substantial (as strict as 0.75), moderate (0.50) or weak (0.25). In this light, the variance accounted by the player orientations for capitals is not appearing that optimal.

Pertaining to the hypotheses related to the relationship between player orientations and cultural capital of the avatar, three hypotheses out of five were supported. It was found that *achievement-mechanics* ( $H_{a2} \beta = 0.144^{**}$ ), *immersion-discovery* ( $H_{i1} \beta = 0.181^{**}$ ) and *immersion-role-playing* ( $H_{i2} \beta = 0.335^{**}$ ) significantly predicted cultural capital. From the remaining hypotheses, *achievement-advancement* ( $H_{a1} \beta = 0.053$ ) and *social-teamwork* ( $H_{s3} \beta = -0.002$ ) were not significantly associated with cultural capital. Beyond the hypothesized associations between player orientations and cultural capital, also *social-socializing* ( $\beta = 0.077^*$ ), *social-relationship* ( $\beta = 0.100^{**}$ ) and *immersion-customization* ( $\beta = 0.245^{**}$ ) were found to significantly predict cultural capital.

Economic capital was hypothesized to be significantly associated with one subcategory. It was, however, found that *immersion-customization* ( $H_{i3} \beta = 0.116$ ) did not significantly predict economic capital. In addition to the hypothesized association, *achievement-ad-*

*vancement* ( $\beta = 0.109^{**}$ ), *achievement-competition* ( $\beta = 0.144^{**}$ ), *achievement-mechanics* ( $\beta = 0.187^{**}$ ), *social-relationship* ( $\beta = 0.095^{*}$ ) and *social-teamwork* ( $\beta = 0.093^{*}$ ) were found to significantly predict economic capital.

For social capital, three out of the four hypothesized positive associations were supported. It was found that *social-socializing* (Hs1  $\beta = 0.325^{**}$ ), *social-relationship* (Hs2  $\beta = 0.433^{**}$ ) and *social-teamwork* (Hs3  $\beta = 0.091^{**}$ ) positively and significantly predicted social capital. However, *achievement-competition* (Ha3  $\beta = 0.044$ ) was not found to significantly predict social capital. Additionally, *immersion-escapism* ( $\beta = 0.073^{**}$ ) and *immersion-role-playing* ( $\beta = -0.053^{*}$ ) were found to significantly predict social capital.

Lastly, symbolic capital was hypothesized to be predicted by two player orientations. Only *achievement-advancement* (Ha1  $\beta = 0.161^{**}$ ) positively and significantly predicted symbolic capital, whereas *immersion-customization* (Hi3  $\beta = 0.053$ ) did not. Beyond the hypothesized associations *achievement-competition* ( $\beta = 0.106^{**}$ ), *achievement-mechanics* ( $\beta = 0.098^{*}$ ), *social-relationship* ( $\beta = 0.327^{**}$ ) and *social-teamwork* ( $\beta = 0.175^{**}$ ) were found to positively and significantly predict symbolic capital.

	Beta	p	CI LOW 95	CI HIGH 95
<b>Cultural Capital (<math>R^2 = 0.543</math>)</b>				
Achievement-Advancement	0.053	0.143	-0.016	0.131
Achievement-Competition	-0.049	0.100	-0.100	0.015
Achievement-Mechanics	0.144**	0.004	0.036	0.236
Immersion-Customization	0.245**	0.000	0.170	0.311
Immersion-Discovery	0.181**	0.000	0.118	0.243
Immersion-Escapism	0.055	0.051	0.004	0.113
Immersion-Role-Playing	0.335**	0.000	0.216	0.428
Social-Relationship	0.100**	0.001	0.037	0.158
Social-Socializing	0.077*	0.030	0.010	0.147
Social-Teamwork	-0.002	0.948	-0.059	0.066
<b>Economic Capital (<math>R^2 = 0.207</math>)</b>				
Achievement-Advancement	0.109**	0.009	0.035	0.197
Achievement-Competition	0.144**	0.000	0.068	0.225
Achievement-Mechanics	0.187**	0.001	0.060	0.278
Immersion-Customization	0.116	0.114	-0.033	0.254
Immersion-Discovery	0.001	0.989	-0.103	0.096
Immersion-Escapism	0.007	0.843	-0.063	0.079
Immersion-Role-Playing	-0.044	0.240	-0.111	0.039

Social-Relationship	0.095*	0.016	0.015	0.167
Social-Socializing	-0.065	0.135	-0.137	0.033
Social-Teamwork	0.093*	0.028	0.012	0.180
<b>Social Capital (R<sup>2</sup> = 0.585)</b>				
Achievement-Advancement	0.042	0.172	-0.018	0.100
Achievement-Competition	0.044	0.093	-0.011	0.089
Achievement-Mechanics	-0.026	0.379	-0.077	0.032
Immersion-Customization	0.061*	0.025	0.007	0.114
Immersion-Discovery	0.029	0.258	-0.018	0.080
Immersion-Escapism	0.073**	0.009	0.020	0.131
Immersion-Role-Playing	-0.053*	0.047	-0.107	-0.001
Social-Relationship	0.433**	0.000	0.384	0.486
Social-Socializing	0.325**	0.000	0.262	0.384
Social-Teamwork	0.091**	0.001	0.034	0.149
<b>Symbolic Capital (R<sup>2</sup> = 0.331)</b>				
Achievement-Advancement	0.161**	0.002	0.053	0.259
Achievement-Competition	0.106**	0.006	0.033	0.183
Achievement-Mechanics	0.098*	0.016	0.017	0.172
Immersion-Customization	0.053	0.236	-0.032	0.144
Immersion-Discovery	0.056	0.178	-0.024	0.139
Immersion-Escapism	-0.031	0.385	-0.092	0.046
Immersion-Role-Playing	-0.051	0.229	-0.123	0.044
Social-Relationship	0.327**	0.000	0.240	0.390
Social-Socializing	-0.060	0.318	-0.162	0.077
Social-Teamwork	0.175**	0.000	0.085	0.248

Table 4.

## 5 DISCUSSION

This chapter discusses and presents possible reasons that will shed more light as to why some theorized associations were or were not present in the data. In the research model, there were fourteen statistically significant associations between player orientations and forms of avatar capital. Some of them were theorized and predicted correctly, whereas some were somewhat surprising. This chapter will present each capital type's associations starting with cultural capital and move in order they are in Table 4 from top to bottom. Cultural capital had seven significant associations out of ten possible correlations and five of them had a correlation at a significance level of 0.01. Economic capital had half of the possible correlations, out of which two were at a significance level of 0.01. Social capital had four positive associations and each of them was at a significance level of 0.01. Finally, symbolic capital had five correlation with four of them at a significance level of 0.01.

### 5.1 Cultural Capital

A positive correlation between cultural capital and *achievement-mechanics* supports the initial hypothesis and is not surprising. The more a player is interested in how *FFXIV* works and how to operate in the game world, the more his understanding and knowledge of *FFXIV* increase. Players with a high *achievement-mechanics* score will have a higher amount of cultural capital in *FFXIV* as their interest in the game's rules, allowances and limits give them more information than it is necessary to play *FFXIV* in a successful fashion. Playing game successfully does not require the player to know about *FFXIV*'s lore, how other classes and jobs work, nor how to work in a team. It is enough that the player knows how to complete quests, use UI and HUD, defeat monsters and navigate the game world. Players interested in a game's mechanics need to satisfy their thirst for knowledge and that in turn as a byproduct increases their cultural capital in and of *FFXIV*.

The two other initial hypotheses that were supported are from the *immersion* component. *Discovery* or *role-playing* focused players have knowledge of *FFXIV*'s lore, the world, and the stories it offers, although the way cultural capital is gained is in different forms and as is how cultural capital is spent. Players with a high *discovery* score like to explore the game world more than other kinds of players. For them, playing *FFXIV* is learning



about the game's stories it has available for the player, to know more about relationships between different factions, regardless if those factions are enemies or NPCs and what is their stance to the faction(s) players present. These players also look for stories behind the names of locations and understand why certain farmer needs wolves to be culled. *Discovery-oriented* players might, in general, enjoy more RPGs than other players as one source of their enjoyment in *FFXIV* comes from discovering new and hidden places and doing side quests not many players are even aware of. *Role-players* want to play *FFXIV* as if their avatar was a real person inhabiting the fictional game world. To be taken seriously as a role-player, the avatar must meet numerous criteria, before even starting to play *FFXIV*. This way of playing is, however, vastly different from imitating certain character or a stereotype, for example, a grandmother. Some of these criteria are matching race, gender and class choices according to *FFXIV*'s lore. For example, if it is stated in *FFXIV*'s lore that most mages are female humanoids, it would be more believable to role-play as one instead of creating a male avatar with a tail (Miqo'te are a mix of feline and humanoid in *FFXIV*). In addition, name conventions must be followed and background story for the avatar needs to be plausible. To match all these criteria requires existing knowledge of *FFXIV*'s lore and setting, acquired before playing, reading wikis and forums, for example. Another way to acquire cultural capital in order to be taken and treated as a serious role-player is by playing *FFXIV* for some time before deciding to either create a new avatar or editing current one to fit the chosen narrative. Many MMORPGs offer post-avatar creation tools against real money if players want to edit their avatars later on for any reason.

Somewhat surprising is that *achievement-advancement* and *social-teamwork* did not have a significant positive association with cultural capital. Even though, they were hypothesized as both of these player orientations rely on the high amount of game knowledge. To advance in power and wealth, the player needs to have knowledge of *FFXIV*'s rules and abuse them in order to grow stronger and wealthier, but there was no significant positive correlation between *achievement-advancement* and cultural capital. One reason for this could be the way cultural capital was measured regarding the knowledge of *FFXIV*, focusing on sharing information, knowing about the game world and how to operate in it. Furthermore, this data indicated that advancing in *FFXIV* does not require extensive knowledge of the game's aspects, but just enough to come by.

*Social-teamwork* was also theorized to have a positive association with cultural capital, because the shared knowledge that helps teams work better as a unit, thus requiring higher

than average knowledge of *FFXIV*'s rules and boundaries. This includes knowledge of multiple classes and jobs, their strengths and weaknesses, and of group content and bosses' strategies. Surprisingly, though, this was not the case. Reasons might vary from being in a team with a certain position where deeper knowledge of how team members' jobs work is not required to simply focusing on just one job or in a more casual approach to group content in a friendly atmosphere.

In addition to theorized positive associations with cultural capital, four correlations emerged. These are *immersion-customization*, *-escapism*, *social-relationship* and *-socializing*. Starting with the latter component, *social*, the positive association with *relationship* and cultural capital might be explained by sharing information with small, but intimate, group and team members. This way multiple players can share in an open environment their criticism, questions, doubts and tips with other players without being too formal or even modest about them. It is easier to ask from a close friend in-game where a certain UI setting is found than to ask it in a general chat channel, as there is no guarantee that question is answered or the correct answer is given in general chats. This possible sharing of information in a small circle enhanced players' knowledge of *FFXIV* from sheer curiosity without the fear of backlash from a more general community. Questions are asked and answered by players who can be trusted to behave in a certain way and to contribute to the community in their own way.

*Socializing*-oriented might follow the same route as *relationship*-oriented players, whereas the focus is at a more general level of socializing and often is not restricted to just free company (*FFXIV*'s equivalent of a guild) chat. *Socializing*-oriented are more prone to chat in multiple linkshells (*FFXIV*'s equivalent of a chat channel), region-wide channels, server-wide channels, and proximity-based ways of communication. The similarity, in terms of asking and answering questions, to *relationship* might come from having a larger pool of players to chat with and therefore sharing information is reaching a much higher amount of readers when compared to a free company chat, for example. However, the range of questions asked in a limited community versus a more general pool of players might vary greatly, as some players might want to ask a quick question about something, and therefore increase their cultural capital. Reasons for asking in a general channel are numerous but most probable reason might be having no in-game friends or members of the free company online or feeling embarrassed to ask where a certain monster or NPC is. This way players are using anonymity on multiple levels, as players are

behind their avatar's names and the name of the avatar might be unknown to most players on a server.

Last two positive associations with cultural capital were from the *immersion* component and these were *customization* and *escapism*. The positive association between cultural capital and *customization* might come from *role-playing*'s inspired way of customizing character on or after avatar creation screen. It should be noted that *customization* includes a wider array of acceptable avatar editing options than *role-playing* does. Customizing character can include anything from copying in-game NPCs to imitating a Wild West highwayman to wearing next to none visible gear. Some players immensely enjoy customizing their character based on their mood, available resources or just for fun and joking around. *Customization*'s association with cultural capital could be explained as a cumulative knowledge of how and where to collect certain pieces of gear and items in order to reach satisfactory look in-game for the avatar or the housing option player has available.

The amount of cultural capital the avatar has could, therefore, be predicted by looking at *immersion*-oriented players, as each of the subcomponents in that category had a positive association. In addition, *achievement-mechanic*-oriented players and unorganized *socializing-oriented* should be also taken into account when exploring and attempting to predict cultural resources an avatar has at its disposal and ready to be consumed.

## 5.2 Economic capital

The only hypothesized correlation in the economic capital category was with *immersion-customization*, but surprisingly after data analysis, no positive association was found. Instead, this correlation was at  $p = 0.115$ , and thus falls out of the used significance level thresholds. Reasons for this might be that players do not spend a significant part of their economic assets to customizing their avatar or they do not think that they spend a lot of time doing so. The items are somewhat vague when it comes to customization regarding *FFXIV*. In *FFXIV*, players are able to customize their avatar in a great depth, including the style and color of their hair, make-up and gear, active title, mount, job or class. Also, players are able to customize their Chocobo companion's color, battle style and barding. Chocobos are an avian creature type, that is featured in each and every Final Fantasy

game in one way or another. In *FFXIV*, Chocobos can be used as mounts or battle companions that will aid the avatar in non-instanced content, namely freely explorable zones. Players can also customize their free company's five-character tag and the crest that can be imprinted on some gear. Lastly, players can own an apartment and in-game house with their free company, with a friend or be the sole owner of the house and each free company house allows for a personal room for members of the free company that shares the dimensions of the apartment room. This large amount of available customization tools renders items in *immersion-customization* somewhat limiting, especially in *FFXIV*, and in future many other MMORPGs because giving players more ways and freedom to customize their avatar and gear is one growing business. Thus, the items do not measure other aspects of customization in *FFXIV*. Nevertheless, each of these customization options requires quite a bit of in-game wealth, especially if the desired look needs a newly released crafted item.

The analysis of the data found five positive associations with economic capital. These are every subdimension in *achievement* component with *social-relationship* and *-teamwork* as the last two. It seems that players who are *mechanics*-oriented have increased the amount of in-game wealth in some relation. One of the reasons could be that players who are interested in figuring out how *FFXIV* works and which rules it operates on, are likely to be part of an organized community, such as a serious free company that focuses on raiding. Participating actively, often in a set schedule, in the raiding scene requires external consumables, such as food, potions, various enhancements to gear and gear being repaired for each raiding session in order to be as competent and competitive (against other groups) as possible. These consumables are almost without exception player-made and therefore requires either self-sufficiency at extreme levels or gil to buy them. Another could be that as the mechanics of *FFXIV* become more familiar, the easier it is to know how to utilize that gained knowledge to accumulate economic capital.

From the *achievement* component, the positive association between economic capital and *competition* subcategory seems somewhat unexpected. The items about player's orientation towards competing with other players revolved around annoying or otherwise irritating purposefully co-players. Therefore, it seems somewhat odd that those who are prone to frustrate other players have in relation increased amount of economic capital. Items did not give any further context to what kind of irritation or annoyance is asked of respondents. Therefore, giving false information and re-decorating free company's house are both

valid ways to annoy other players. Communication itself does not require economic capital, but customizing an avatar to look a certain way or re-decorating co-owned in-game house do require economic capital in order to reach aimed reaction from targets. Customizing the avatar can be anything from wearing all pink to imitating a controversial character in a movie, for example. Redecorating free company house, then again, can vary from changing wall colors to completely replacing furniture and background music.

*Achievement-advancement's* positive association with economic capital is, however, not that surprising. *Advancement*-oriented players like to find new ways to advance their character in many ways, be it wealth, gear or renown. The *advancement* orientation is closely related to *mechanics*, in the sense of knowledge of *FFXIV* is required to move forward in the game. The points of view for these two categories is different because *mechanics* oriented players want to know how *FFXIV* works, whereas *advancement*-oriented look for ways to make themselves have more power and control in the game world. To be more powerful in the world of *FFXIV*, requires knowledge of how to conquer more difficult enemies, that in turn yield more powerful or valuable items. These increase directly (gear) or indirectly (valuables) avatar's power, depending on the type of advancement player is focusing on.

From the *social* component, *relationship* and *teamwork* were found to have a positive association with economic capital. *Teamwork's* correlation could be explained by wanting, or demanded, to contribute to the team player is part of. This includes crafting consumables before raids, for example. Being able to craft consumables means that the player has sufficient skill level in a crafting class to produce demanded items to self, the group or for sale using the in-game auction house. Some players might even gather all the required materials for consumables and therefore provide for the team. Players needing those consumables, but are unable to craft them, might either gather the materials themselves and if lacking necessary skill and gear, buy them from the market board.

Finally, *social-relationship's* correlation with economic capital could be explained by the same reasons as *teamwork's*. In the context of *relationship*-oriented players, the circle of community and players around is more likely smaller and tighter than with *teamwork* oriented players. This is supported by *relationship* having p-value (0.014) a bit lower than *teamwork* had (0.034). Close friends and family seem to share their economic capital with

other members of the community to make sure that everyone has whatever items they need, be it consumables for raid night or a new lamp for the personal room, for example.

Economic capital had more than expected positive associations with various subdimensions. Unlike cultural capital's association, economic capital and the accumulation and consumption could be predicted by looking at *achievement* oriented people who enjoy a deeper level of communication (*social-relationship*) or are part of an organized group (*social-teamwork*).

### 5.3 Social capital

Social capital was theorized to be positively associated with four different subdimensions, and these were *achievement-competition* and every orientation type from the *social* component. *Achievement-competition* was not positively associated with social capital, even though it was thought to be because players oriented interacting with players would in some positive relation increase the amount of social capital. The items in social capital section measure whether or not players have in-game contacts and at what level (casual and random, or more emotional and tighter), leading items not to take into account all possible ways of accumulating social capital. Social capital can also be something else than a social network that is utilized to move to desired position in-game (from "dead" free company to actively raiding one, for example). In order to map out what these other forms could be, requires multiple studies and approaches before any coherent conclusions could be made.

Remaining three theorized positive associations were all from the *social* component and they were all supported with a significance level of  $p < 0.01$ . These results are not surprising at all, as each *social*-oriented player will have multiple contacts in *FFXIV* because other players are always present and communication in *FFXIV*, and in other MMORPGs to that matter, is not restricted to proximity or zone. *Relationship*-oriented players more likely have increased the amount of bonding social capital as for them playing is meaningful when it happens with close friends and family in a safe environment. Therefore, playing time is spent exploring, talking and wondering about *FFXIV* while working together towards the next goal on both individual and communal levels.

*Socializing* and *teamwork* oriented players, in turn, more likely have increased amount of bridging social capital, as for them communicating in *FFXIV* is either more random, casual and superficial than it is for those who prefer to play within a small tight community. *Socializing-oriented*, therefore, like to talk to in more general channels that reach players from other zones as well or like to hang out in hubs, such as in-game cities or high-level NPC camps, to be near crowds of players. Communication happens more suddenly as the topics talked in general channels usually vary greatly during the one-hour period and due to a high number of players in those channels, topics can be random. Whereas in free company players are prone to know each other and can expect certain topics to be brought up more often. Also, *socializing-oriented* might just enjoy chatting with people and they might think that restricting chatting only to free company channel might be too limiting and boring after some time. Players can put up and run linkshells, or custom channels, that have a limit of 128 players and it operates in a similar manner as a free company channel. Everyone online member can chat in the linkshell. Often, these linkshells have a certain purpose, varying from housing only Finnish players, coordinating multiple free companies for role-playing or raiding events, announcing spawns of notorious monsters (another Final Fantasy aspect, that is present in multiple games) or just a private channel for friends that are part of a free company where not everyone is as close, for example.

*Teamwork-oriented* players have their social network that they can utilize in order to attempt to clear hardest of dungeons. These players are in a regular contact with at least seven other players, as the group size for hardest raids is eight players. Raids require an extremely high amount of coordination and understanding of how other members of the group work, and therefore regular communication is almost mandatory for a group to be successful. Also, players can search for pick-up groups from linkshells, party finder or just advertising oneself in group finder, furthering their social network that could be utilized later for one's benefit.

In addition to these theorized correlations, two positive associations were found between social capital and two from the *immersion* component, *escapism* and *role-playing*. This positive correlation between avatar's social capital and *immersion-escapism* is not surprising, as many players like to relax after a day in school or work by playing or immersing themselves in games by taking their minds off from offline life and enjoy absolutely different one in *FFXIV*. *Escapism* was not theorized to be predicting any capital a player might have. The reason for this is, unlike any other subdimension *escapism* does not have

any concrete manifestations in *FFXIV*, but rather is more of a general motivation to play. This is, to escape from everyday life to virtual one in order to forget worries, stress and strains player might deal in offline life. One reason for this positive association might be that *escapism*-oriented players enjoy immensely talking, chatting and otherwise communicating with other players in an environment that are not tied to their everyday life in any way. They might find this very relaxing, having something else to talk about and do, other than to think work or school.

The positive association between avatar's social capital and *immersion-role-playing* is likewise not surprising. One possible reason for this finding is that when players think about role-playing in *FFXIV*, they usually associate it with the act of role-playing that multiple players take part in. However, it is unlikely that if a player likes to dress and name their avatar according to *FFXIV*'s fashion and conventions, it is not regarded as role-playing per se. Those ways of visualizing their avatar are more likely a requirement for serious role-playing, with story and avatar arches spanning multiple sessions. These role-play sessions can include in-game weddings, funerals, hanging out in the hot springs or living a D&D-themed (dungeons and dragons) player-written stories with dice and so on. Hence, players with active role-play life in *FFXIV* do accumulate and consume social capital.

Social capital is the most studied type of capital in online video game context. The reason for this has been the need to study how playing online video games affect our offline social life. The area of study has been approached from multiple points of views and this study, while utilizing validated scales by Williams (2006) and Yee (2007) does not, however, seek to add to this relationship between offline and online lives. The analysis revealed that players looking for social interactions in *FFXIV* also find them and therefore social contacts might become one of the motivation to keep playing the game, regardless of the type of content they are focusing on.

## 5.4 Symbolic capital

Only one of two hypothesized positive associations were supported by the data. *Achievement-advancement* was the only one with a positive association with symbolic capital, while there was no positive association between symbolic capital and *immersion-customization*. *Advancement*-oriented players seek ways to increase their power of wealth, and



it is concretized, or legitimized when other players recognize their feats in some way or another. Player legitimization in this sense happens when someone is known or remembered by their way of dressing their character or talking in actively or in a certain in general channels. Especially for *advancement*-oriented players, wearing unique or difficult to obtain gear is one way to gain recognition in *FFXIV*, intentional or not. Also, obtaining various vanity items, such as mounts or pets, is one way to be recognized in-game, as some of the vanity items are only obtained after beating the last boss in a raid, or after earning one of the more tedious achievements that require long-term dedication to do a repetitive task over and over again. It is, however, unclear, if these players aim or want to obtain rare items in order to be recognized because items in this survey only ask whether a player has something or not. The items in *achievement-advancement* focus on being as efficient as possible and becoming always a bigger and greater than yesterday.

The unsupported hypothesis, *immersion-customization*, was theorized to have a positive association with symbolic capital. Through the customization, the avatar will stand out in the crowd, the in-game house is decorated in a unique way or Chocobo companion is dressed using rare barding, and therefore will attract attention or recognition from other players asking where said items could be obtained or commenting on the looks. One reason for this lack of positive association might come from the fact that players do not role-play their avatars in *FFXIV* that often, and do not seek attention by customizing their character. Thus, it is logical to assume that *customization*-oriented players enjoy mainly editing their avatar and belongings for own satisfaction and not for public attention.

Moreover, four additional positive associations were found from the data. These were *achievement-competition*, *achievement-mechanics*, *social-relationship* and *social-teamwork*. It is after all not surprising that *competition* subdimension was found to have a positive association with symbolic capital. By irritating and annoying other players in a decisive manner, will attract attention from other players on the same server or in a community. As servers in *FFXIV* can house thousands of players at the same time, actively playing on a server will make player accustomed to the server's social rules, topics and persons over time. Especially players who aim to disturb other players' gaming sessions by swearing, talking inappropriately, spamming emotes, scamming, giving false instructions and information, will have an effect on the player's reputation in *FFXIV*. Therefore, the positive association found in the data could come from players with a certain stigma are being recognized for their dishonorable actions and thus increasing symbolic capital.

They might not be able to utilize the symbolic capital gained in this way, as the items measure recognition only, not the form of recognition the players have.

*Achievement-mechanics* also had a positive association with symbolic capital. One reason for this correlation might be a sum of other aspects of motivation and capitals player and avatar have, because it is difficult to directly combine a player's interest in a way of playing *FFXIV* with symbolic capital, or recognition and legitimization of avatar's deeds. *Mechanic* oriented players are interested in knowing how *FFXIV* works, what are its rules and boundaries and simply knowing or willingness to learn these things does not accumulate symbolic capital. Therefore, it is logical to think that avatar's symbolic capital is only partly predicted by player's motivation to be efficient at his chosen role and knowledge of *FFXIV*'s mechanics.

Both *relationship* and *teamwork* that were found to have a positive association with symbolic capital might have very similar reasons for the correlation. Assuming that each type of player is part of a small and somewhat closed community, and in some cases part of both groups simultaneously, they are recognized by that community on multiple levels. The closer the community is, more often using the name of the avatar to call out different players in a free company gets replaced with the real name. Getting recognized as a certain type of player such as crafter, tank, healer, decorator, rich and so on, allows for increased accumulation of symbolic capital.

The amount of symbolic capital avatar has at any given time, could be predicted by looking at *achievement* component scores combined with *social-relationship* and *social-teamwork*. Strangely, both symbolic and economic capital share the exact same positive associations with five subdimensions. This means that players with a high motivation score in the *achievement* and *social* categories can be expected to roughly have in similar relation high amount of economic and symbolic capital.

## 6 CONCLUSIONS

This final chapter presents and discusses the implications and limitations of this study. Chapter starts by discussing the potential theoretical and practical implications of the study. After that is a discussion about the limitations of this study before concluding this study by exploring shortly the possible future scientific research areas and pathways.

### 6.1 Implications

Currently, only social capital has gained scholarly attention and it is a trend that has continued for almost two decades when digitalization started. In 2000, Putnam introduced the terms bridging and bonding social capital to better study the effects of being online on offline life. In the last decade, the Internet has come more and more accessible to the wider audience, and it has caused in turn to many services having online versions or moved there altogether. It is, therefore, natural that entertainment has followed this trend, and MMORPGs could not exist without a constant connection to the Internet. Unfortunately, social capital has been the only type of capital with extensive, or any, amount of studies and points of view when mapping out how being online affects our offline life. This focus on social capital has meant that no other capital types have been considered to be part of the player's habits while playing a game.

This study does not aim to replace or defy existing capital theories but to add to them. This study aims to introduce and bring attention to more types of capitals that players of an MMORPG have. This study approached the gap in the research field from Bourdieu's division of capitals treating the world of *FFXIV* as a society where the ever-present players form a similar-minded society that is restricted to the topics of *FFXIV*. This means that the types of capitals used in this study are in some sort of relation to other types of capital. Thus, this approach attempts to conceptualize the theory of societal capitals into the world of an MMORPG and examine how the theory works in this context. This study shows that there are other types of capital than just social capital in effect when measuring player's capitals and motivations to play. The results from the data analysis argue for the claim that capitals should not be completely separated from other types. Rather, more theoretical work is needed to find more types of capitals that could work in the context of online multiplayer games, such as MMORPGs.

This study contributes to the research area of video games by examining the relationship between an avatar's capitals and player orientation. Studying players and their avatar's available concrete and abstract resources in a game has not been examined nor explored in this scope earlier. Therefore, this study brings more light to the capital studies by presenting results that despite the player's offline life situation, he might have accumulated very large amounts of capitals in a game. Thus, it should be noted that the capitals a person has in offline life, are not the only types of capitals he can have, but can be very rich in a game, or be exalted guide maker in another. Similarly, any hobbyist, regardless of the hobby or activity itself, can be thought to have significant amount of capitals in the respective circles and communities. In this communities, especially in the world of MMORPGs, prevails unique rules that are unique to the game. These rules are the ones put in effect by the developers and player-made ethical and moral rulesets that each player and group is ought to obey. However, these rules and capitals are only effective in their respective topics regarding an MMORPG.

The theoretical point of view introduced here should not be taken as the only one way of approaching capitals in video game contexts, but rather one of the many possible ways of doing so. Therefore, this study brings more attention to the gap in the research field and pushes it forward by introducing one complex point of view. It is strongly encouraged to approach more online multiplayer games from capital points of view and more boldly utilize existing scales in narrowed down contexts. The most important theoretical implication this study has, is studying MMORPGs using a more holistic framework of capitals in order to understand more precisely what, how and why players spend their time in *FFXIV*.

The theoretical framework that was discussed above, is best utilized and validated using quantitative methods for data gathering. Item developing for the surveys should be approached from exploring possible ways for in-game aspects to be measured. This ensures that the items in surveys always have an in-game presentation. Using and applying different types of capitals could be more beneficial than the ones used in this study, depending on genre. For example, *League of Legends* is also an online multiplayer game, but its game world is not persistent. Therefore, the items in certain capital sections need to be replaced, rewritten and in some cases, even their point of view changed from purely in-game to communities and groups around *League of Legends*.

For practitioners in the video game industry, this study provides a powerful tool to measure avatar's capitals and how they are accumulated and consumed. This way the developers of video games can map out how the players of their games perceive their game in terms of coherence, affordances for social interactions, being recognized for their feats and so on. In addition, developers can measure motivations for how the players gain and spend in-game currencies. Combining with server data, the results from the survey will provide accurate results when studying player behavior. Naturally, game specific terms, and currencies and ranks, for example, needs to be changed to match the game in question. This brings issues with the ability to directly compare results between MMORPGs, and games within the same genre, but basic aspects should not prove too difficult. These basic aspects are social, economic and symbolic aspects, as there is no MMORPG at this time on the markets that doesn't have a chat, ways to exchange items between players and every player is unknown to others. Only the game's mechanics and lore present challenges, as games have a different battle, leveling and questing systems. Even though players' knowledge increases, it does so on in a form that is dependent on the game.

## 6.2 Limitations

This study approached and applied capital theory using just one game's player population to explore possible relationships between avatar's capitals and player orientations. Focusing solely on one genre and one game is indisputably one of the biggest limitations of this study. Staying within the MMORPG genre, each of the games might produce different sets of correlations. This is because every MMORPG is, after all, both very similar and different from each other and in some cases, the only common nominator is that they have been categorized as MMORPGs, for example comparing *EVE Online* (CCP Games 2003) and *FFXIV*. Both of these games can host a massive number of players simultaneously within the same game world, interact with each other, form groups, trade and so on. However, setting for these games is vastly different as *EVE Online* is set in space and has multiple science fiction inspirations, while *FFXIV*'s game world is more traditional fantasy game world that is influenced by classic fantasy role-playing games and previous Final Fantasy games. Similarly, other differentiating factors between MMORPGs, apart from the setting, are a subscription model, available platforms, target audience, play style, mechanics, role distinction, focus on grouping, et cetera. Therefore, this study shows how

players of one game in one genre accumulate, hold and consume capitals and what their MMORPG preferences are.

Secondly, even though this study used previously validated player typology scale, it is, however, just one of the numerous player typologies available at this moment, as was discussed in chapter 2.3. Using a different typology scale would shift the focus from MMORPGs to a more general level, and would, therefore, provide entirely different results. As these typologies often focus on a certain aspect of a player, traits or preferences, for example, there would be a need to ask respondents to fill each every one of the surveys in order to form a coherent picture why he plays different kinds of games and what he aims to do in those games. Another limitation for using Yee's (2007) scale is its age. The scale used here is eleven years old, and some items might not be represented enough in contemporary MMORPGs and in their designs.

Theorizing which capitals to use to measure players' available resources and affordances are dependent on the point of view. In some approaches, it could be more feasible to focus more on certain capitals, or even bring along different types of capitals not used in this study. Using Bourdieu's division of capitals is not a definitive division to be used in studying and exploring avatar's capitals in online video game context, as Bourdieu approached his theories from a societal level. This, of course, is not the only way to study how capitals and MMORPGs are related.

The nature of the survey, self-report, and how it is distributed are also limiting elements. Without having an access to *FFXIV*'s server data, there is no way to validate answers from the respondents. There might be some over exaggerations in the answers, especially on questions where the respondent has the power to freely format and submit their answer, such as giving a number of in-game currencies or additional information how he spends and gains in-game currencies. Also, any demographics that requires respondent's input is subject to not being absolutely truthful. However, after filtering results based on the check-up item, no sets of answers where strictly one type of answer was found (choosing the answers in the first column only, for example). Thus, the chance for respondents giving intentionally wrong answers is minimal and statistically insignificant. Though, server data access would have made survey data gathering easier and shortening the survey's length.

Distribution channels of the survey are also limiting factors. As it was impossible to feasibly and reliably share and spread information about the survey in-game, numerous social media channels were used instead. Reddit, official forums, game related Discord servers and channels and Facebook were used to host information about the survey and giving a direct link to the survey in the posts. There might be some bias in the answers as active players that are active in social media channels will come across the survey more likely. Thus, leaving more “casual” players uninformed of the survey and therefore answers might lean towards certain types of players. In this context, this group consists of active players who are interested in the information about *FFXIV* when not playing it.

Lastly, the length of the survey might have prevented some possible respondents taking their time to fill the survey. The average time for filling the survey was between 20 and 25 minutes, making it quite long. Reasons for not taking their time to answer are speculative at best, but the length of the survey is one of the factors there are not so many answers as there could be.

### **6.3 Future**

There are multiple possible pathways to continue studying the online video gaming phenomena. One studying avenue could be further examining how different types of capitals are manifested in games. It could be beneficial to look more closely at other aspects of MMORPG gameplay, much like social capital has been heavily studied in the last decade. For example, exploring how players who are very active in online video games and how it contrasts to the feel that they are not in control of their lives outside games. Thus, limiting studies to social capital comparison only, cannot provide larger picture this delicate topic deserves. The second avenue, regarding the topic of the capital theory presented in this study, is to look at other genres, such as Multiplayer Online Battle Arena and Real-Time Strategy games, such as *League of Legends* and *StarCraft* (Blizzard Entertainment 1998) respectively. Direct comparison, in the theory’s current state, is impossible and extremely difficult even within a certain genre, because each game has its own tricks and quirks other games do not have in order to stand out in their respective genres. The third avenue could be to explore how capitals leak, flow and change forms between real life and game worlds. One extremely trending area for this kind of study at the moment is

eSports. eSports business is growing and expanding at extreme velocity with some eSports stars already retired from competitive play, but not necessarily from the scene.

This study started by exploring existing theoretical frameworks that measure online video game preferences (Yee 2007), social relationships and networks (Williams 2006) and how the capitals one holds, accumulates and consumes can be split and examined (Bourdieu 1986). The challenge was to move and restrict these three foundational frameworks to just one genre and more precisely to one game. Yee's section of the survey did not require any changes, as it was already focused on the MMORPG genre as a whole. Therefore, some items might not have a high enough factor loading because each game attracts differently oriented players. This study further validates that Yee's scale is still feasible and relevant in the studies that revolve around MMORPGs, even though some items might need to be updated, added to modernize the scale and extend its relevance. Williams' scale did not suffer from its age, but the scope was too broad (every online relationship versus one game's). Two items had to be removed before distributing the survey as they were about money and it was not feasible to find the equivalent sum of in-game currencies to keep the item relevant. Other than that, Williams' scale was successfully utilized in this narrowed down the scope and further asserts that the world of MMORPGs is indeed vibrant, lively and socializing is happening every day at some level. Lastly, Bourdieu's division, not separation, of capitals originally criticized the French society and he attempted to popularize the society's functionalities in more easily digestible manner. Apart from Williams' social capital scale, each other capital section had to be developed based only on previous definitions and possible ways the capitals could manifest in-game. Bourdieu's framework did perform well in the context of video games and especially in one game. Thus, transferring the contexts was a success, but not perfect. More theoretical work is needed to solidify capital studies as part of the game research field.

Focusing on just one MMORPG brings a more precise understanding of *FFXIV*'s player-base because this avoids confusion when answering questions in more general surveys, therefore respondents always know through which avatar they should look at the questions. When answering a survey that attempts to map out players in a whole genre in one survey, it might get confusing for the respondent to answer some of the questions. The reason is that players play each game differently, with different aims, foci, activity, social network, skills and understanding. Thus, focusing on one game when asking about online game motivations or the capitals players' avatars have, ensures that the answers are more



definitive. This should be kept in mind when the aim is to study the players of just one online video game.

Development of the survey is a more concrete way to advance this area of study. Finding better ways to collect data from players of a game is always a profitable task, as it lessens the burden on respondents and allows researchers to focus more precisely. For this reason, co-operating with the game's developers could be critical. With the access to server data, the survey will be shorter and thus gives more resources to develop more accurate items, and would ensure that non-psychometric items in the survey are validated and real, assuming that respondents give correct character name if the survey is not distributed within the game itself. Therefore, two main aims for developing the survey emerges. Firstly, developing the survey to be much shorter and secondly finding ways to validate each section of the survey regardless of having access to server data.

In order to further stress test and validate the survey, it is necessary to compare results using different player typologies. This, in turn, would ensure capital survey's ability to explain and explain the player's resources and behavior in the survey's context, be it one game or a genre altogether. However, it might not be feasible just to test capital survey with each player motivation/typology scale available, but to find the survey its own place alongside the other scales.

Ultimately, it would be ideal to develop the capital theory in the context of video games forward, so that it could be used in multiple genres with direct comparisons between games within a genre made possible. Iterating the theory and the survey are very far from done, as this study should be treated as an introduction to giving forgotten and ignored types of capital the attention they deserve.

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## APPENDIX

Section and notes	Item	Answer Options
<b>Personal items</b>		
	Gender	Male/Female/Other (Please Specify)
	Age	Free Form
	Country	Dropdown menu
	On which datacenter do you currently play?	North America/Europe/Asia
	What is your current occupation?	Student/Employed/Unemployed/Retired/Other (Please specify)
	What is your education?	Elementary School/College/High School/Bachelor/Master's/PhD/Other
	What platform are you mainly using to play Final Fantasy XIV?	PC/PS4/PS3/Mac
	What is your veteran rank?	0-13
	How many hours per week do you play Final Fantasy XIV on average?	0/1-5/6-10/11-15/16-20/21-25/26-30/31-35/36-40/41-45/46-50/51-55/56-60/61 or more
	In politics people sometimes talk of left and right. Where would you place yourself on a scale from 1 to 5 where 1 means the left and 5 means the right?	1 - 5
	In politics people sometimes talk of liberal and conservative. Where would you place yourself on a scale from 1 to 5 where 1 means the liberal and 5 means the conservative?	1 - 5
	How often do you read forums/discussions related to FFXIV in a week?	0/1-3 times/4-6/daily/2+ times a day
<b>Avatar items</b>		
	What race is your character in-game?	Roegadyn/Elezen/Huyr/Miqo'te/Au Ra/Lalafell
	What gender is your character in-game?	Male/Female
	What is your current main [Disciple of War/Magic job] in-game?	Machinist/Astrologian/Dark Knight/White Mage/Black Mage/Monk/Ninja/Bard/Summoner/Scholar/Paladin/Warrior/Dragoon
	What are your current main foci in the game?	PvE/PvP/Crafting/Gathering/Money-making/Socializing/Collecting vanity items/Roleplaying/Other
<b>Impact on Offline Life</b>		

	I have often altered my schedule in order to play the game.	Strongly disagree (1) <-> Strongly agree (5)
	I have cancelled social or work meetings in order to play the game.	Strongly disagree (1) <-> Strongly agree (5)
	I am okay with sharing contact information with in-game friends.	Strongly disagree (1) <-> Strongly agree (5)
	I want to be in contact with other players regularly outside the game.	Strongly disagree (1) <-> Strongly agree (5)
	I want to meet other players in real life.	Strongly disagree (1) <-> Strongly agree (5)
	I often talk more with my in-game friends than of-line friends.	Strongly disagree (1) <-> Strongly agree (5)
	What does your friends outside the game think of you playing [Final Fantasy XIV]?	They don't know about it/They do not accept it/They do not like it/They don't have an opinion/They accept it/They have wanted to try it/They are playing with me/Other
	I often find myself enjoying the game more than of-line events, such as seeing a movie in cinema or a weekend party.	Strongly disagree (1) <-> Strongly agree (5)
	[FFXIV] has taught me more about languages used in-game. This includes both language used by game and players in chat.	Strongly disagree (1) <-> Strongly agree (5)
	[FFXIV] has taught me how to work in groups more efficiently.	Strongly disagree (1) <-> Strongly agree (5)
	[FFXIV] has taught me more about everyday mathematics.	Strongly disagree (1) <-> Strongly agree (5)
	[FFXIV] has taught me to be more aware of my surroundings.	Strongly disagree (1) <-> Strongly agree (5)
	[FFXIV] has taught me to be better at hand-eye coordination.	Strongly disagree (1) <-> Strongly agree (5)
<b>Social Capital</b>		
	I have several in-game friends I trust to help solve my problems regarding the game.	Strongly disagree (1) <-> Strongly agree (5)
	I have someone in-game I can turn to for an advice about making very important decisions in-game.	Strongly disagree (1) <-> Strongly agree (5)
	I have several in-game friends I can talk to when I feel lonely.	Strongly disagree (1) <-> Strongly agree (5)
	There are in-game friends who would put their reputation on the line for me in-game.	Strongly disagree (1) <-> Strongly agree (5)

	The people I interact with in-game would help me stand up and bring out toxic players to the authorities.	Strongly disagree (1) <-> Strongly agree (5)
	The people I interact with in-game makes me interested in things I would other-wise ignore.	Strongly disagree (1) <-> Strongly agree (5)
	The people I interact with in-game makes me want to try new things.	Strongly disagree (1) <-> Strongly agree (5)
	The people I interact with in-game makes me curious about what other players think about the game.	Strongly disagree (1) <-> Strongly agree (5)
	Talking with people in-game makes me curious about other aspects of the game.	Strongly disagree (1) <-> Strongly agree (5)
	The people I interact with in-game makes me feel like part of a larger community.	Strongly disagree (1) <-> Strongly agree (5)
	The people I interact with in-game makes me feel connected to the bigger picture.	Strongly disagree (1) <-> Strongly agree (5)
	I am willing to spend time to support in-game communities and their activities.	Strongly disagree (1) <-> Strongly agree (5)
	Talking with people in-game makes me meet new players to talk to.	Strongly disagree (1) <-> Strongly agree (5)
	I am in contact with other players in-game constantly.	Strongly disagree (1) <-> Strongly agree (5)
<b>Economic Capital</b>		
	Please estimate roughly, how much on average you gain [gil] in 1 month from	
	[Challenge log]	0 - 100,000 / 100,001 - 200,000 / 200,001 - 300,000 / 300,001 - 400,000 / 400,001 - 500,000 / 500,001+
	Dungeon and raid runs	0 - 1,000,000 / 1,000,001 - 2,000,000 / 2,000,001 - 3,000,000 / 3,000,001 - 4,000,000 / 4,000,001 - 5,000,000 / 5,000,001 -
	Crafting	0 - 1,000,000 / 1,000,001 - 2,000,000 / 2,000,001 - 3,000,000 / 3,000,001 - 4,000,000 / 4,000,001 - 5,000,000 / 5,000,001 -
	Gathering	0 - 1,000,000 / 1,000,001 - 2,000,000 / 2,000,001 - 3,000,000 / 3,000,001 - 4,000,000 / 4,000,001 - 5,000,000 / 5,000,001 -
	[Retainer ventures]	0 - 100,000 / 100,001 - 200,000 / 200,001 - 300,000 / 300,001 - 400,000 / 400,001 - 500,000 / 500,001+
	[Free Company] activities (airships, exploratory missions, plots for example)	0 - 1,000,000 / 1,000,001 - 2,000,000 / 2,000,001 - 3,000,000 / 3,000,001 - 4,000,000 / 4,000,001 - 5,000,000 / 5,000,001 -
	[Wondrous Tails]	0 - 100,000 / 100,001 - 200,000 / 200,001 - 300,000 / 300,001 - 400,000 / 400,001 - 500,000 / 500,001+

	Other sources (Please specify)	
<b>Forms of Spending</b>	Please estimate roughly, how much on average you spend [gil] in 1 month for	
	PvP	0 - 100,000 / 100,001 - 200,000 / 200,001 - 300,000 / 300,001 - 400,000 / 400,001 - 500,000 / 500,001+
	Crafting	0 - 100,000 / 100,001 - 200,000 / 200,001 - 300,000 / 300,001 - 400,000 / 400,001 - 500,000 / 500,001+
	Gathering	0 - 100,000 / 100,001 - 200,000 / 200,001 - 300,000 / 300,001 - 400,000 / 400,001 - 500,000 / 500,001+
	Vanity items	0 - 100,000 / 100,001 - 200,000 / 200,001 - 300,000 / 300,001 - 400,000 / 400,001 - 500,000 / 500,001+
	PvE	0 - 100,000 / 100,001 - 200,000 / 200,001 - 300,000 / 300,001 - 400,000 / 400,001 - 500,000 / 500,001+
	Reaching satisfactory look in-game	0 - 100,000 / 100,001 - 200,000 / 200,001 - 300,000 / 300,001 - 400,000 / 400,001 - 500,000 / 500,001+
	Other sources (Please specify)	
<b>Amounts</b>	Please, estimate roughly the following amounts.	
	How much [gil] do you earn in a month?	0 - 1,000,000 / 1,000,001 - 2,000,000 / 2,000,001 - 3,000,000 / 3,000,001 - 4,000,000 / 4,000,001 - 5,000,000 / 5,000,001 -
	How many [Grand Company Seals] do you earn in a month?	0 - 10,000 / 10,001 - 20,000 / 20,001 - 30,000 / 30,001 - 40,000 / 40,001 - 50,000 / 50,001 - 60,000 / 60,001 - 70,000 / 70,001 - 80,000
	How much [gil] do you have?	0 - 10,000,000 / 10,000,001 - 20,000,000 / 20,000,001 - 30,000,000 / 30,000,001 - 40,000,000 / 40,000,001 - 50,000,000 / 50,000,001 -
	How many [Grand Company Seals] do you have?	0 - 10,000 / 10,001 - 20,000 / 20,001 - 30,000 / 30,001 - 40,000 / 40,001 - 50,000 / 50,001 - 60,000 / 60,001 - 70,000 / 70,001 - 80,000
	How many [Manderville Gold Saucer Points] do you have?	0 - 50,000 / 50,001 - 100,000 / 100,001 - 150,000 / 150,001 - 200,000 / 200,001 - 250,000 / 250,001 -
	How many [Wolf Marks] do you have?	0 - 5,000 / 5,001 - 10,000 / 10,001 - 15,000 / 15,001 - 20,000
	Estimate the monetary value of your belongings in [gil]. Include pets, mounts, gear, personal house and apartment, for example.	0 - 10,000,000 / 10,000,001 - 20,000,000 / 20,000,001 - 30,000,000 / 30,000,001 - 40,000,000 / 40,000,001 - 50,000,000 / 50,000,001 -
<b>Cultural Capital</b>		
	I talk to various NPCs in order to find more about the lore.	Strongly disagree (1) <-> Strongly agree (5)
	I read various websites in order to find more about the lore.	Strongly disagree (1) <-> Strongly agree (5)
	I think the game world is coherent.	Strongly disagree (1) <-> Strongly agree (5)
	I roleplay my character to make the game more immersive.	Strongly disagree (1) <-> Strongly agree (5)
	I care how my characters look in-game.	Strongly disagree (1) <-> Strongly agree (5)



	I think job mechanics and abilities fit their respective in-game idealization.	Strongly disagree (1) <-> Strongly agree (5)
	I think boss mechanics and abilities are coherent and fit their respective in-game descriptions.	Strongly disagree (1) <-> Strongly agree (5)
	I search for new information and discussion about the game on a regular basis.	Strongly disagree (1) <-> Strongly agree (5)
	I often theorycraft my rotations and item stats to increase the output.	Strongly disagree (1) <-> Strongly agree (5)
	I share what I know about the game to others in the form of text guides.	Strongly disagree (1) <-> Strongly agree (5)
	I share what I know about the game to others in the form of video guides.	Strongly disagree (1) <-> Strongly agree (5)
	I share what I know about the game to others in the form of graphical guides.	Strongly disagree (1) <-> Strongly agree (5)
	I share what I know about the game to others in the form of streaming.	Strongly disagree (1) <-> Strongly agree (5)
	I use my knowledge of the game to help others during runs. For example a dungeon run or PvP match.	Strongly disagree (1) <-> Strongly agree (5)
	I know how to accumulate more resources to meet my needs.	Strongly disagree (1) <-> Strongly agree (5)
	How many achievement points do you have?	0 - 2,000 / 2,005 - 4,000 / 4,005 - 6,000 / 6,005 - 8,000 / 8,005 - 10,000 / 10,005 -
<b>Symbolic Capital</b>		
	I am recognized in-game for my deeds through vanity items.	Strongly disagree (1) <-> Strongly agree (5)
	I am recognized in-game for my deeds through gear.	Strongly disagree (1) <-> Strongly agree (5)
	I am recognized by my character's looks.	Strongly disagree (1) <-> Strongly agree (5)
	I am recognized in-game for my deeds through titles.	Strongly disagree (1) <-> Strongly agree (5)
	I am happy with my position in my [Free Company].	Strongly disagree (1) <-> Strongly agree (5)
	I am happy with my position in my one ore more [linkshells].	Strongly disagree (1) <-> Strongly agree (5)
	I am happy with my position in my [static].	Strongly disagree (1) <-> Strongly agree (5)
	I am happy with my position in social media where topics are about [FFXIV].	Strongly disagree (1) <-> Strongly agree (5)

	I am recognized in-game for my in-game house/room.	Strongly disagree (1) <-> Strongly agree (5)
	I am recognized in-game for my deeds.	Strongly disagree (1) <-> Strongly agree (5)
	What is your Grand Company rank?	No rank/Private Third/Private Second/Private First/Sergeant Third/Sergeant Second/Sergeant First/Chief Sergeant/Second Lieutenant/First Lieutenant
	What was your tier in the latest ranked PvP (The Feast) season?	No tier/Bronze/Silver/Gold/Platinum/Diamond
	What is the highest floor boss you've cleared in Palace of the Dead while in a group?	0/10/20/30/40/50/60/70/80/90/100/110/120/130/140/150/160/170/180/190/200
	What is the highest floor boss you've cleared in Palace of the Dead while solo?	0/10/20/30/40/50/60/70/80/90/100/110/120/130/140/150/160/170/180/190/200
	Please estimate roughly how many titles you have in-game.	0/1-10/11-20/21-30/31-40/41-50/51-60/61-70/71-80/81-90/91-100/101+
	Please estimate roughly how many pets you have in-game.	0/1-20/21-40/41-60/61-80/81-100/101-120/121-140/141-160/161-180/181-200/201+
	Please estimate roughly how many mounts you have in-game.	0/1-10/11-20/21-30/31-40/41-50/51-60/61+
	Out of these 10 rarest pets I have the following:	Multiple choice + data from official census.
	Out of these 7 rarest achievements I have the following:	Multiple choice + data from official census.
	Out of these 10 rarest mounts I have the following:	Multiple choice + data from official census.
<b>MMORPG-scale, Nick Yee 2006 Game Play Motivations (39-item version)</b>		
<b>The following questions focus on your preferences in online games.</b>		
	How interested are you in the precise numbers and percentages underlying the game mechanics? (i.e., chance of dodging an attack, the math comparing items' stats, etc.)	Not Interested At All Slightly Interested Somewhat Interested Very Interested Extremely Interested
	How important is it to you that your character is as optimized as possible for their profession / role?	Not Important At All / Slightly Important / Somewhat Important / Very Important / Extremely Important
	How often do you use a character builder or a template to plan out your character's advancement at an early level?	Never Seldom Sometimes Often Always

	Would you rather be grouped or soloing?	Much Rather Solo Rather Solo In-Between Rather Group Much Rather Group
	How much do you enjoy working with others in a group?	Not At All A Little Some A Lot A Great Deal
	How important is it to you to be wellknown in the game?	Not Important At All / Slightly Important / Somewhat Important / Very Important / Extremely Important
	How much time do you spend customizing your character during character creation?	Not At All A Little Some A Lot A Great Deal
	How important is it to you that your character's armor / outfit matches in color and style?	Not Important At All / Slightly Important / Somewhat Important / Very Important / Extremely Important
	How important is it to you that your character looks different from other characters?	Not Important At All / Slightly Important / Somewhat Important / Very Important / Extremely Important
	How much do you enjoy exploring the world just for the sake of exploring it?	Not At All A Little Some A Lot A Great Deal
	How much do you enjoy finding quests, NPCs or locations that most people do not know about?	Not At All A Little Some A Lot A Great Deal
	How much do you enjoy collecting distinctive objects or clothing that have no functional value in the game?	Not At All A Little Some A Lot A Great Deal
	How important are the following things to you in online games?	
	Acquiring rare items that most players will never have.	Not Important At All / Slightly Important / Somewhat Important / Very Important / Extremely Important
	Becoming powerful.	Not Important At All / Slightly Important / Somewhat Important / Very Important / Extremely Important
	Accumulating resources, items or money.	Not Important At All / Slightly Important / Somewhat Important / Very Important / Extremely Important
	Knowing as much about the game mechanics and rules as possible.	Not Important At All / Slightly Important / Somewhat Important / Very Important / Extremely Important
	Being immersed in a fantasy world.	Not Important At All / Slightly Important / Somewhat Important / Very Important / Extremely Important
	Escaping from the real world.	Not Important At All / Slightly Important / Somewhat Important / Very Important / Extremely Important
<b>How much do you enjoy doing the following things in online games?</b>		
	Helping other players.	Not Enjoyable At All Slightly Enjoyable Moderately Enjoyable Very Enjoyable Tremendously Enjoyable
	Getting to know other players.	Not Enjoyable At All Slightly Enjoyable Moderately Enjoyable Very Enjoyable Tremendously Enjoyable

	Chatting with other players.	Not Enjoyable At All Slightly Enjoyable Moderately Enjoyable Very Enjoyable Tremendously Enjoyable
	Competing with other players.	Not Enjoyable At All Slightly Enjoyable Moderately Enjoyable Very Enjoyable Tremendously Enjoyable
	Dominating/killing other players.	Not Enjoyable At All Slightly Enjoyable Moderately Enjoyable Very Enjoyable Tremendously Enjoyable
	Exploring every map or zone in the world.	Not Enjoyable At All Slightly Enjoyable Moderately Enjoyable Very Enjoyable Tremendously Enjoyable
	Being part of a friendly, casual guild.	Not Enjoyable At All Slightly Enjoyable Moderately Enjoyable Very Enjoyable Tremendously Enjoyable
	Being part of a serious, raid/loot-oriented guild.	Not Enjoyable At All Slightly Enjoyable Moderately Enjoyable Very Enjoyable Tremendously Enjoyable
	Trying out new roles and personalities with your characters.	Not Enjoyable At All Slightly Enjoyable Moderately Enjoyable Very Enjoyable Tremendously Enjoyable
	Doing things that annoy other players.	Not Enjoyable At All Slightly Enjoyable Moderately Enjoyable Very Enjoyable Tremendously Enjoyable
<b>How often do you do the following things in online games?</b>		
	How often do you find yourself having meaningful conversations with other players?	Never Seldom Sometimes Often Always
	How often do you talk to your online friends about your personal issues?	Never Seldom Sometimes Often Always
	How often have your online friends offered you support when you had a real life problem?	Never Seldom Sometimes Often Always
	How often do you make up stories and histories for your characters?	Never Seldom Sometimes Often Always
	How often do you role-play your character?	Never Seldom Sometimes Often Always
	How often do you play so you can avoid thinking about some of your real-life problems or worries?	Never Seldom Sometimes Often Always
	How often do you play to relax from the day's work?	Never Seldom Sometimes Often Always